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ORIGINAL COMMUNICATIONS.

CASES OF SUCCESSFUL OPERATION FOR STRANGULATED HERNIA IN OLD PEOPLE; WITH REMARKS.

By T. B. CURLING, Esq., Surgeon to the London Hospital, etc.

CASE I. STRANGULATED SCROTAL HERNIA—DIVISION OF THE STRICTURE EXTERNAL TO THE SAC—RECOVERY. Abraham Joshua, aged 81, a stout man, of the Jewish persuasion, who had always enjoyed good health, was admitted into the London Hospital on the 9th of February, 1849, at 8 A.M., on account of an irreducible Oblique Inguinal Hernia. He had been subject to rupture for some years; and, until lately, had worn a truss. The swelling had appeared a few hours previously, but he had been unable to reduce it as usual. His bowels had been relieved the day before. There was a large tumour occupying the left side of the scrotum; it was tense, and received no impulse on coughing. The taxis was applied by the dresser whilst the patient was in bed, and afterwards in a warm bath, without effect. A dose of castor oil was given at noon; and subsequently a bladder of ice was applied to the tumour. In the evening, the old man became sick, and complained of pain in the tumour; and about 9 P.M., in consequence of the increasing urgency of the symptoms, I was sent for. Having failed in my attempts to reduce the Hernia, I determined to operate without further delay. An oblique incision, about three inches in length, commencing an inch and a half above the external abdominal ring, was carried downwards over the neck of the sac. The tense margin of the outer ring, girting the neck of the sac, was divided; and, as this gave but partial and insufficient relief, some bands of fascia were cut through, and the protruded parts were then readily returned, without the hernial sac having been opened. The operation was borne extremely well; and the patient felt so comfortable after removal to a warm bed, that no medicine of any kind was given him. The bowels acted next morning. He was then ordered to take a draught of camphor mixture, with m. xx of aromatic spirits of ammonia, three times a day. He was put upon a nutritious diet, and allowed eight ounces of wine. On the second day after the

operation, the patient being restless in bed, the rupture returned. It was reduced without difficulty by Mr. Holman, the House-Surgeon. This accident did not interfere with the healing of the wound, which united partly by the first intention, and soon entirely closed. A truss was ordered; and he was discharged on the 24th February, the fifteenth day after the operation.

Case II. Strangulated Large Umbilical Hernia—Operation—Sloughing of the Hernial Sac and Integuments—Recovery. Ann Hanson, a large fat woman, æt. 79, married, was admitted on the evening of Sunday, February 18th, 1849. She had been subject to a Rupture at the Umbilicus for thirty-four years, but had worn a truss for it only during the last four. The tumour, however, had been but partly reducible. She had lived very temperately, had enjoyed excellent health, and through a long life had never been confined to her bed except at the birth of her children. The rupture had caused but little inconvenience until the Thursday preceding, when it increased in size, and became rather painful. This did not, however, prevent her getting about on Friday, although she suffered pain in the back and loins. The bowels acted on Thursday, and slightly on Friday morning. On Saturday, the pain in the tumour increased, and nausea came on. She sent for a surgeon, who attempted to reduce the swelling by the taxis, without success, and afterwards applied a bladder of ice, with no better result. He advised her being carried to the hospital; but she refused to go. In the evening she became sick and had hiccough; she continued in this state during the night. She was worse next day; and was at length persuaded to go to the hospital, where she arrived at half-past 6 P.M. On examination, a tumour of the size of a large orange, and of an oval form, was found at the umbilicus, hanging downwards. The integuments were of a dark colour. The swelling was very painful, and received no impulse on coughing. It was soft on the surface, but towards the neck felt very hard. The pulse was quick and small, and the countenance anxious. A freezing mixture was applied until my arrival at 8 P.M. After investigating the case, I arrived at the conclusion, that a portion of intestine was strangulated beneath a quantity of omentum, and had been in this state so long, that it was useless to try the taxis. I accordingly determined to operate at once. An incision, three inches long, was made over the centre of the upper part of the neck of the tumour, through a thick mass of fat, and an attempt was made to divide the stricture without opening the sac, or by making a small opening at the neck without exposing the contents. This proved very difficult, owing to the great depth of the stricture (about two inches from the surface), and the small size of the abdominal opening; it was therefore abandoned. The incision was extended to the bottom of the tumour, and then measured about six inches in length. The hernial sac was opened freely, and found to contain a large mass of omentum closely condensed and matted together. On tearing through this mass, a dark knuckle of intestine was exposed. The stricture was divided, the intestine returned into the abdomen, and the omentum, which was adherent to the sac, left *in situ*. The wound was closed by sutures, and the patient sent to bed. No medicine was ordered; but

she was allowed beef-tea, and wine and water, as soon as the stomach would bear food. Shortly after the operation, in consequence of her complaining of much pain in the abdomen, Mr. Holman, the House-Surgeon, ordered her to have immediately the following pill: ℞ Calomelanos gr. v; pulv. opii gr. j.

19*th*, 1 P.M. Bowels had not acted; abdomen tender and painful. In the evening, the tenderness and pain in the abdomen having increased, the following pill was ordered: ℞ Calomelanos gr. ij; pulv. opii gr. ¼. To be taken every four hours.

20*th*. The bowels had been freely relieved, and the pain in the abdomen had subsided. The patient was much depressed; the pulse was small and quick; the tongue dry and brown. The calomel and opium were discontinued. Eight ounces of port wine, and a pint of beef-tea, were ordered.

21*st*. The patient was extremely feeble, and the wound in a sloughy state. She was ordered to take the following draught three times a day: ℞ Misturæ camphoræ ʒi; tincturæ cardamomi comp. ʒj; ammoniæ sesquicarbon. gr. v; and, besides the wine, to have two pints of porter, and an additional pint of beef-tea.

22*nd*. The powers of the system were not so depressed, and the tongue was moister. The whole of the hernial sac and its integuments, and the greater part of the protruded omentum mortified, and, in the course of time, separated in sloughs. The patient was placed on a water bed, and supported with stimulants and a nourishing diet. The immense wound left after the detachment of the dead parts granulated and healed, though very slowly. The skin around became the seat of a troublesome eczema, which resisted various applications, but yielded to the following lotion: ℞ Acetatis plumbi., gr. xvj; spiritûs vini rect. ʒij; acidi hydrocyanici diluti, ʒij; aquæ ʒ xij. She gradually recovered her strength; and, having been fitted with a truss, was discharged cured April 28th.

Case III. Strangulated Femoral Hernia—Operation—Recovery. Ambrose Goodin, a spare old man, aged 69, was brought to the hospital, on the 24th of March, 1849, suffering from a Strangulated Femoral Hernia, of rather large size, on the right side. He had been subject to the rupture for 20 years, and had long worn a truss for it. It came down on the 20th, since which he had been unable to reduce it, but had kept the truss pressing on the tumour during all that period. The swelling was tense, and received no impulse on coughing; and the general symptoms of strangulation were urgent. He vomited continually, had hiccough, a feeble pulse, and cold extremities. I had visited the patient at his residence, and tried the taxis; and having again failed in a slight attempt made after his admission, the operation was decided on. I cut down on the neck of the hernial sac, and carefully divided all the bands which appeared in any degree to constrict the neck, but without being able to reduce the hernia. The sac was, therefore, opened; and, after the division of a tight stricture formed by its neck, a portion of small intestine, a good deal congested, was returned into the abdomen. As soon as the sac was opened, about four drachms of dark bloody serum escaped. After the operation, the patient was very

low, and continued to suffer from hiccough. He was carried to a warm bed; heat was applied to the extremities; and he was ordered the following draught: ℞ Mist. camphoræ ʒj; spiritûs ætheris sulphurici comp. ʒj; tincturæ opii m. xxx. Beef-tea was ordered to be given when the stomach could bear food.

25*th*. The bowels not having acted twenty-two hours after the operation, he was ordered a drachm of sulphate of magnesia in an ounce of peppermint water every second hour, until the bowels acted; but not to exceed four doses, before he was again seen. The bowels acted in the evening after two doses. He was allowed eight ounces of wine in addition to the beef-tea. Under this treatment, his pulse improved in strength, and he recovered without any unfavourable symptom. The wound was dressed on the 28th. It was found to have united by the first intention throughout, except at one spot, where a sinus opened. This continued to discharge for some time, but closed by the 15th of April, when he was discharged cured.

Case iv. Strangulated Femoral Hernia of large size—Operation—Sac opened—Sloughing of the Sac and Omentum—Recovery from the Operation—Epithelial Cancer of the Strangulated portion of Intestine, and Death eight weeks afterwards. Harriet Barnett, a widow, aged 81, residing at Stratford, of lean appearance, but who had always enjoyed excellent health, was admitted into the London Hospital, at 9 P.M., December 2nd, 1849, suffering from a Strangulated Femoral Hernia on the right side. She had been subject to a rupture for twenty years; but had always been able to return it without assistance, excepting upon one occasion, eight years ago, when she was brought to the hospital and got relieved in a warm bath. She had since that time worn a truss. She stated that the rupture came down whilst she was in bed, about three o'clock on the morning of her admission. This was shortly followed by pain and sickness, which continued throughout the day. She sought the assistance of a surgeon in the neighbourhood, and was attended by his assistant, who, according to her account, used considerable force in attempting reduction. A tobacco injection and tobacco smoke having been introduced into the rectum without effect, she was sent to the hospital, a distance of four miles. Upon her admission, she was placed in a warm bath, and the taxis was again tried, but without success. I was summoned; and, on my arrival at 10 P.M., found a large Femoral Hernia, about the size of a cricket ball, which was tense and rather painful. She complained of some uneasiness at the umbilicus: but the abdomen was soft. Her pulse was rather weak. I directed a bladder of ice to be applied to the tumour for a quarter of an hour; and, having made steady but gentle pressure on the part without effect, decided on operating. The stricture was divided chiefly external to the sac; but, in doing so, I made a small opening at the neck, which allowed the escape of a quantity of serum tinged with blood. Being unable to return the protruded parts, I opened the sac, and exposed a large mass of omentum, and about six inches of small intestine, and found the principal obstacle to the reduction to arise from the swollen condition of a portion of the intestine, the coats of which were infiltrated, in a remarkable manner, with extravasated blood. So great was the

effusion, that it was surprising that the serous coat had not given way. With some trouble, the intestine was carefully returned. Being unwilling to replace the large mass of omentum, I excised a considerable portion of it. This was followed by free bleeding from several small arteries, and no fewer than five required tying. During the operation, the pulse was intermittent, and became very feeble. She took some wine, which was rejected. She was removed to a warm bed, warmth was applied to the feet, and I prescribed the following draught to be taken immediately: ℞ Misturæ camphoræ ʒj; spiritûs ætheris sulphurici comp. ʒj; tincturæ opii m. xxx. Warm brandy and water, and beef-tea, were ordered to be taken when the stomach would bear them.

December 3rd. She had been much relieved by the operation, and felt tolerably comfortable. Her pulse was very quick, and there was considerable tenderness of the abdomen, but no tension. She had taken four ounces of brandy since the operation. This was discontinued; and, at the patient's request, a pint of porter was substituted. A grain of calomel with half a grain of opium was ordered to be taken night and morning, and a castor oil injection to be given at night.

December 4th. The bowels had been freely relieved after the injection; but the stomach continued rather irritable. In consequence of pain at the umbilicus, Mr. Wyatt, the House-Surgeon, ordered four leeches to be applied. The sickness continuing, she was ordered a draught of camphor mixture, with twenty drops of aromatic spirits of ammonia and ten drops of laudanum. Two ounces of brandy were given in place of the porter. The calomel and opium were discontinued.

December 5th. The wound was dressed, and looked healthy. The sac containing the omentum was rather tender, and distended with fluid. She was placed on a water bed. Although the upper part of the wound continued to heal favourably, the appearance and smell of the discharge from the sac below, and the state of the integuments, led me to suspect that mortification was taking place.

December 10th. I laid the part freely open with a bistoury, and found the sac and omentum within in a sloughy state. A few days afterwards, she had an attack of bronchitis, which reduced her strength considerably. The chest symptoms were relieved by suitable remedies; and she was supported by stimulants, being allowed four ounces of brandy, in addition to eight ounces of wine and a pint of porter daily. She rallied a good deal under this treatment. The mortified parts by degrees separated, and the wound made by the operation quite healed up by the 25th. This part bulged a good deal, in consequenee of a hernial protrusion at the original seat of rupture. She improved so much, that there appeared a good hope of her final recovery. During, however, the cold month of January, she became very feeble. She also complained of severe pain in the seat of the rupture, attended with considerable uneasiness in the back, which occurred at intervals. The pain was accompanied with extreme languor, faintness, and cold perspirations. The bowels had been at times sharply relaxed, but latterly had been tolerably regular. She was at length able to take scarcely any nourishment besides stimulants, became much emaciated, and depressed in spirits; and, after gradually sinking day by day, expired on January 24th, seven weeks and four days after the operation. At this time,

there was only a small triangular sore remaining at the bottom of the wound, occasioned by laying open the lower part of the sac a few days after the operation.

Sectio Cadaveris twenty hours after Death. There were marks of bronchitis in the lungs. The abdominal viscera generally were healthy. On the right side, the omentum was adherent to the femoral ring, and to the bottom of the closed sac; and a small portion of the ascending colon protruded into the cavity. The coats of this part of the great intestine were thickened and indurated, and the peritoneal coat was slightly puckered. On passing the finger through the gut, the passage was found to be slightly contracted; and, on dividing it longitudinally, I found a large raised ulcer of an oval shape, the long diameter of which was in the transverse direction, and nearly two inches in length, and the short diameter an inch and a quarter. The edges of the ulcer were everted, and the base indurated. The surface presented small irregular spongy-looking granulations or excrescences, more or less congested. A section being examined microscopically, the raised granulations were found to consist of epithelial growth, the base of the ulcer being formed chiefly of indurated areolar tissue.

Remarks. These four cases, three of which occurred within six weeks, are examples of Successful Operation for Strangulated Hernia on persons of advanced age,—a time of life at which the operation does not commonly succeed in saving the patient. I have the reports of fifteen cases (out of a table of two hundred and eight) in which the operation of Hernia was performed in the different hospitals of London, on individuals of the age of seventy and upwards; and of these, only four recovered.

In the first of the cases just related, independently of the great age of the patient, the circumstances were favourable. The Hernia was recent, and the sac was unopened in the operation. In the third case, strangulation had existed for four days, and the great prostration made me apprehend mortification of the protruded parts. This fortunately had not taken place; and, with the aid of stimulants and a nourishing diet, the patient rallied, and recovered rapidly without a bad symptom. The second and fourth cases are by far the most remarkable. In the second, the patient incurred not only the ordinary and serious perils of a Strangulated Umbilical Hernia of large size, requiring an operation for its relief, but also those consequent on mortification of a large mass of omentum, and of the whole of the hernial sac and its integuments. She owed her recovery, under such unfavourable circumstances, in great measure to a sound constitution, carefully preserved by an abstemious life. In the fourth case, in which the patient had attained the age of eighty-one, the operation was also followed by sloughing of a large piece of omentum and of a great part of the hernial sac. She bore up surprisingly under all this, and even rallied from a sharp attack of bronchitis at the coldest season of the year; but she sank at last, chiefly from the effects of a remarkable disease of the intestine, which we may presume was engendered partly through the agency of the stricture, but more especially by the rough attempts to reduce the Hernia by the taxis, made previously to the patient's admission into the hospital.

In the large number of operations for Hernia which I have witnessed, I have never seen a portion of intestine exhibit such striking marks of violence, as existed in this instance. The peculiar ulcerated sore which was found at the part, gives much additional interest to this case. The disease presented the characters of epithelial cancer, resembling, in its microscopical appearances, the growths occasionally developed in various parts of the skin. I do not recollect having seen any description of this rare form of ulcer in the intestine by an English writer; certainly I have met with no account of any such disease occurring in a portion of intestine injured in rupture. The following description given by Rokitansky, of the characters of certain sores occurring in the large intestines, corresponds exactly with the appearances of the ulcer in the above case. This eminent pathologist does not appear to have fully satisfied himself as to the nature of the disease. "There are certain ulcers which occur only in the large intestine, and especially in the sigmoid flexure and the rectum, and are nearly allied to cancer, and particularly to cutaneous cancer. They are generally solitary, but there may be two, three, or four at a time. They invariably give rise to intense pain, and appear etiologically connected with an abuse of ardent spirits. Although in many respects analogous to the ulcers hitherto considered, they offer distinctive characters. They are invariably zonular, and have a callous base, upon which, occasionally, a discoloured brownish grumous discharge is visible, and they are surrounded by a thick tumid, spongy, carneous, and irregularly sinuous margin of mucous membrane. They generally cause a diminution of the capacity of the intestine, though not to any considerable degree. A further investigation into their nature still remains a desideratum."[1]

It may be a question, whether such extensive disease in the mucous membrane of the colon could have been developed in so short a period as that which intervened between the operation and the patient's death; and her feeble condition, and the slow progress of the affection of the skin, which seems analogous to this, would strengthen the doubt on the point. Nor is our knowledge of this disease of the intestine, sufficient to determine the question satisfactorily. The previous healthy condition, however, of the patient, the bruised appearance of the intestine at the time of the operation, and the severe pain experienced in the part for three weeks before death, lead me to conclude that this large epithelial sore was recent, and owed its origin to the local injury.

After operating for Strangulated Hernia, I very seldom give aperients until sufficient time has passed to enable the intestines to resume their functions naturally, after the interruption caused by the stricture. In many cases, this takes place spontaneously within twenty-four hours after the bowel has been released,—occasionally later; but, by waiting, we may avoid disturbing the injured intestine and irritating the parts, at a time when repose is desirable to promote their recovery from congestion and inflammation. The propriety of this practice, as a general rule, has recently been enforced by several writers.[2] In old people, the

[1] Rokitansky. Manual of Pathological Anatomy. Translated for the Sydenham Society, vol. ii, pp. 100-1.

[2] Cock. Guy's Hospital Reports. Hancock on Hernia: London: 1849.

disadvantage of exhibiting aperients shortly after the operation is decidedly greater than in persons less advanced in life; for, besides the reasons just stated, the system often becomes so depressed from the effects of strangulation—from the vomiting and interruption to the alimentary functions, that after the addition of the shock of the operation, anything which lowers still further the powers of life, materially tends to prevent recovery. I have witnessed cases in which the operation for Hernia has been performed on old people, and an aperient given shortly afterwards, where this treatment, by actively disturbing the bowels, has seriously interfered with the chances of recovery. It has either helped to produce a fatal collapse within a few hours, or has contributed to depress the constitutional powers to such an extent, that the repair of the injured bowel has not proceeded, and the patient has gradually sunk in the course of two or three days. The degree of shock to the system, which may be occasioned by a Strangulated Hernia, will be illustrated by the following case:

Strangulated Femoral Hernia—rapidly fatal. Ann Wood, a woman of spare habit, aged 60, was admitted into the London Hospital, in July 1836, labouring under symptoms of Strangulated Hernia. She had been subject to a reducible Femoral Hernia for several years. The Hernia was small, and had been down less than forty-eight hours. She was in a state of great prostration; so much so, that slight attempts at reduction having failed, it became a question whether she would be able to bear the operation. She was taken into the operating theatre, but after dividing the integuments and a layer or two of fascia without loss of blood, I considered it advisable to desist, being apprehensive that she would die on the table. In a few minutes after being carried back to bed, she expired. On examination of the body, I found slight marks of peritoneal inflammation. The sac contained a knuckle of intestine, strictured and deeply congested.

In this case, the strangulation of a portion of intestine appears to have proved fatal within the short period of forty-eight hours.

Whilst objecting to the early administration of aperients after an operation for Strangulated Hernia, I must observe, that there are evils attending an obstinate and inactive condition of the bowels, which, in old people especially, cannot be disregarded. After the rejection from the stomach of every kind of nourishment for some period previously, evacuations are generally followed by a desire for food; and the sustenance taken at this time of debility greatly contributes to the patient's revival. Whereas, if the stomach and bowels be suffered to remain torpid, or be kept so by opiates, the indisposition for food, and indolent state of the digestive organs, may prevent a healthy reaction. The best mode of obtaining evacuations at this period, is by enemata; but mild aperients are not to be altogether set aside; and those who so strongly advocate the advantage of opiates, must take care that in endeavouring to avoid one source of danger, they do not incur the risk of producing exhaustion, by indisposing the alimentary canal to imbibe nourishment and support.

In February 1847, I operated for Strangulated Femoral Hernia on a lady aged 70; the sac was not opened, and she recovered favourably. In November of the same year, I operated for Strangulated Femoral

Hernia at the London Hospital, on a woman aged 73, and on a man aged 77. In the former, strangulation had existed for three days, and the sac was opened. She was much depressed at the time of the operation, and survived it only twenty-one hours. In the latter, the stricture was divided external to the sac, and the patient recovered. In the January following, I operated also for Femoral Hernia on a female aged 78, and opened the sac. She recovered from the immediate effects of the strangulation and operation, but was subsequently attacked with erysipelas, of which she died on the ninth day after the operation. These cases, added to the four I have previously detailed, make eight cases of operation for Strangulated Hernia in advanced age. Of these, five recovered and three died: the case of death from disease of the intestine, at the end of eight weeks, being included in the latter.

Old persons, when affected with Strangulated Hernia, do not suffer so acutely as younger subjects. The injury to the intestine does not so readily lead to inflammation of the peritoneum, and the symptoms of constitutional disturbance are more subdued, so that the active treatment often called for in other cases after the operation, is rarely required, and can seldom be tolerated. Indeed, when called to such cases, I have often been struck with the mildness of the symptoms and the slowness of their progress; the absence, or slightness of pain in the abdomen; the little tenderness in the swelling; the small degree in which the pulse is disturbed, and the comparatively tolerant condition of the stomach. But the evil to which I have adverted, the threatening failure in the powers of life, though not so forcibly presented to the notice of the surgeon, is no less dangerous, and requires his skilful and judicious management. The remedies which are obviously indicated, are external warmth, opium, ammonia, beef-tea, and often wine, or even brandy. The patient requires, in fact, to be supported under the depressing influence of his complaint.[1] These remarks are not intended to apply to cases of mortified intestine; for the necessity of support in such cases is too urgent, to need any recommendation of the treatment. But my object has been to strengthen the objections which have been offered to the use of aperients shortly after the operation for Hernia, by shewing their peculiar inappropriateness for persons in advanced age; to point out, that when Hernia occurs at this period of life, greater danger is to be apprehended from a failure in the powers of the constitution, than from inflammation of the bowels, or of the peritoneum; that treatment, which would be improper or hazardous soon after an operation performed in early or middle life, is sometimes absolutely required to prevent the aged patient from sinking; and that depletive remedies can seldom be resorted to without risk.

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[1] The greatest age at which a successful operation for Strangulated Hernia has been performed, that I know of, is the case of a man aged 107, who was operated on for Inguinal Hernia, by Mr. Cæsar Hawkins, in St. George's Hospital. The symptoms were not severe: the wound united by the first intention, and the patient recovered. It is stated that "nourishment was given him from the first." *London Medical Gazette*, vol. xxxi, p. 376.

ILLUSTRATIONS OF DISEASES OF THE NERVOUS SYSTEM.

By WILLIAM H. MADDEN, M.D., Physician to the Torbay Infirmary and Dispensary, etc.

NO. II. GENERAL SOFTENING OF THE MEDULLA SPINALIS.

Case. Miss C. first came under my care on November 8, 1843. According to the history I received, she had been subject for many years to frequent attacks of inflammation of the coats of the liver, but had not lately suffered from any acute affection of the kind. At the time of my visit, she complained of a dull, heavy pain in the right hypochondrium and epigastrium, the parts being tender on pressure. There was no enlargement of the liver, nor any tenderness in any other part of the abdomen. She had no cough, and could draw a full breath without pain; but the lower part of the right chest did not expand so well as the left. There was no headache. On the preceding night, she had had rigors, followed by fever. When I saw her, the skin was perspiring freely. She complained of slight nausea. The tongue was covered with a white clammy fur, and indented by the teeth; the bowels were open, without the aid of medicine. Pulse 98, soft. She felt restless, and had no appetite. The complexion was sallow. She had not menstruated for five weeks. These symptoms were in a great measure relieved by local bleeding, alterative aperients, and occasional sedatives; but the pain and tenderness did not leave her, and, on the 14th, she had, in addition, severe pain in the lower lumbar and sacral regions. There was also a spot about one inch to the right of the umbilicus, where pressure caused much suffering, and where there was an obscure feeling of hardness. A few days after this, she began to complain much of pain in the region of the heart; and this symptom was long persistent, being frequently accompanied by irregular action of the organ; but there were no murmurs, nor any other evidence of structural change. The catamenia appeared, with much pain, on the 22nd.

During the next month, matters remained in much the same condition. The digestive organs were sometimes in a more healthy state; but the improvement was only transient, and there were rigors almost every night.

In January 1844, the cardiac pains were so severe, as almost to merit the appellation of *angina pectoris;* and in this form they continued to manifest themselves, in spite of all treatment, until the end of April. Nor, when this symptom had at length disappeared, was my patient much benefited; for if the chest was more easy, the back was worse, the lumbar and sacral regions being very tender on pressure, and the seat of frequent acute pain, which extended along the right sciatic nerve, and into the right hypogastric region. The latter was more especially affected during the catamenial periods, which were always characterized by intense suffering.

It would be tedious to narrate with any minuteness the progress of this wearisome and most unsatisfactory case. My notes record a melancholy succession of aggravations and partial improvements; of spasms

in the limbs, and spasms in the chest; of violent palpitations, and sudden momentary arrests of the heart's action; of headache, and inflamed eyes, and gastric disorder; and the ever-recurring terrible dysmenorrhœa, against which all medicines but opium were utterly powerless. The general health, of course, gradually deteriorated. Motion, of any kind, so greatly increased my patient's suffering, that, after long perseverance, she gave all efforts up, and was allowed to remain almost constantly in bed.

At the beginning of 1845, her aspect had become very cachectic, resembling that of a person afflicted with malignant disease. The pains were intense; and, in the hope of affording some temporary relief, I ordered, on February 16th, the tincture of Indian hemp. She took three doses, of ten drops each; after which, she complained of creeping sensations in her limbs, and fancied that a mouse was in the bed. The medicine was then discontinued. An hour or two afterwards, while getting out of bed to relieve the bowels, she suddenly became insensible. General convulsions then ensued, and lasted during twelve hours, when she died.

Before describing the appearances found on dissection, I must say a few words regarding the *treatment*. It, of course, varied from time to time, as particular symptoms seemed to demand special appliances; but, on the whole, it partook more of a tonic character than of any other. The cardiac pains, after resisting all other means, yielded at last to arsenic, and remained absent for a considerable time; but they subsequently recurred on several occasions, though scarcely with the same violence or frequency. The severe pains in the back and right hypogastrium, were most effectually relieved by small local bleedings; sedative applications did no good, and counter-irritants proved rather injurious than beneficial. The preparations of steel were found to be the most useful tonics, and morphia the only trustworthy sedative. The long progress of the case afforded me many opportunities of testing the efficacy of various new remedies, which were highly lauded in the journals of the period; while its extreme obstinacy not only warranted, but seemed to demand a trial of anything which held out a prospect of relief. I cannot, however, say that I had ever any reason to congratulate myself on having made the experiments. The *succus conii*, strongly recommended by Dr. Neligan, proved a very inefficient sedative. The tincture and extract of *cynara*, of which Dr. Baddesley speaks very highly, produced no effect, excepting a transient unpleasant sensation in the head and eyes, the latter feeling as if they were too large. The *terchloride of carbon*, which was stated at the time to be a remarkably powerful local and general sedative, proved an utter failure; it had no action whatever. I tried the *Indian hemp* two or three times, both as a hypnotic, and for the purpose of relieving the dysmenorrhœa, but without any good effects in this case; though, at the same time, it acted like a charm with a sister of my patient's, who suffered very severely at the menstrual periods, and with whom opium always disagreed. On one occasion, two grains of the extract caused much disturbance of the action of the heart, and then affected the head with confusion, giddiness, etc.; but these symptoms soon passed off, after the administration of a little ammonia.

Sectio Cadaveris, Thirty Hours after Death. *Head and Spine.* There was sub-arachnoid effusion in the head, and the brain was somewhat œdematous, but otherwise healthy. There was also considerably more fluid than usual in the spinal sheath. The spinal arachnoid was spotted with numerous white scales, about a line in diameter, some smooth, others scabrous and feeling gritty, as if from commencing bony deposition. The cord, throughout nearly its whole extent, was in a state of ramollissement, its true structure being scarcely discernible. The nerves of the *cauda equina* were covered with innumerable granules, about the size of a pin's head.

Chest. The right lung was intensely congested, and united to the parietes of the chest, over its entire surface, by old adhesions. The left lung was free, and less congested. There were no tubercles. The heart was healthy.

Abdomen. The omentum was found firmly adherent to the parietes in the right iliac region, the attachment being of old date. The liver was perfectly healthy, both in its substance and tunics. There was a small cyst in each ovary.

Remarks. This case, as regards its symptoms, stands in marked contrast to the one which I recorded in my former paper.[1] In that, it will be remembered, the most prominent manifestation of disease consisted in diminution of the sensibility of the cutaneous surface; there was much pain in the back, when the spine was exposed to succussion, or other violent motions, but want of feeling was the great and pressing ailment. In the case now brought forward, the very opposite state of matters obtained,—intense and scarcely mitigable pain was its chief feature. And yet the difference between the pathological conditions of the cases, as revealed by dissection, was not great. In both we found morbid softening of the spinal cord. In Mr. P.'s case, this ramollissement, confined, or nearly so, to the cineritious matter, was complete in its degree, the centre of the organ being reduced to the consistence of thick cream; in Miss C.'s, all the tissues were involved, but the softening had not proceeded so far. It was sufficiently decided to render the structure almost indistinguishable by the naked eye, but not enough to convert it into a pulp. And herein, perhaps, we may find the means of reconciling the symptomatic discrepancies; for it is quite conceivable, nay, demonstrable, that the same disease of a nervous centre may, in different stages of its progress, produce results of the most opposite character. The great difficulty which lies in the way of this explanation, is involved in the fact, that the *first* symptom in Mr. P.'s case was the anæsthesia; at least, the first of which I had any cognizance.

But, setting this aside, and not attempting to speak dogmatically of what is probably insusceptible of absolute proof, the case just narrated appears to me of especial interest, as showing that there may be more organic mischief going on than is commonly suspected, in that class of cases to which the term *spinal irritation* is usually applied. That this was the nature of my patient's disease, all who saw her were, I believe, thoroughly convinced. It presented the phenomena generally regarded

[1] London Journal of Medicine, January 1850, p. 10.

as diagnostic of that affection. There were the variable neuralgic pains; sometimes seizing on the chest with intense severity, and giving rise to the tortures of angina pectoris; sometimes localized in the hypogastrium, or darting down the sciatic nerve, or fixed in the back itself, and rendering motion almost impossible. In addition, there were the uterine disturbance, scanty menstruation, with intolerable suffering, and the various indications of disordered functions, which are almost never absent under circumstances of that nature. Moreover, on more than one occasion, we had manifestations of those anomalies, which so frequently characterize purely nervous disorders. Being strongly impressed with the views of the case just noticed, and anxious every way to give tone and strength to the system, I encouraged and urged my patient to persist in leaving her bed, and going into the open air as much as possible. Of course, this was done cautiously, all unnecessary motion being avoided; and she persisted in it, although she affirmed that on every movement the pains were much aggravated. I confess I scarcely believed this (imagining that, in common with most patients of the same class, she unconsciously exaggerated her sufferings), until, on one occasion, my visit happened to be paid while she was out of doors. I found her lying on a stretcher in the garden. She had been carried there as gently as could be accomplished; but the pale, anxious, ghost-like face, the feeble pulse, and cold clammy hands, convinced me that my suspicions were not correct, and taught me to be less urgent in future. And yet, in spite of all this, we had conclusive proof that she did, more than once, get out of bed unaided, and walk to various parts of the room to procure what she wanted, without any evidence of such increased suffering as, at other times, was induced by simply lifting her from the bed to a sofa. It is not easy to explain these things.

The most commonly received view of the pathology of spinal irritation is, that it depends upon a congested state of the medulla; and the relief so frequently afforded by local blood-letting, is a strong argument in its favour. I have seen the most obstinate and incessant vomiting, which had for days resisted all treatment, at once removed by the application of a few leeches to the spine. But the case before us shows, that a more serious local mischief may give rise to symptoms of precisely the same nature. It shows that they may have, as their cause, something more than mere vascular congestion,—that there may be actual perverted nutrition of the cord itself. And it is well to bear this in mind; for it is clear that, in such a case, if the disease be not arrested in its progress, the issue may be paralysis.

We come then to consider, what was the cause of the spinal affection. Some years before she came under my care, my patient fell down some stairs, and hurt her back a good deal; but the immediate effects soon passed off, and she had no symptoms indicating mischief in the parts. Nevertheless, it is quite possible that this accident may have laid the foundation of her future ailments.

But there is another hypothesis to which I would direct attention for a few moments, because, though perhaps it is unneeded in, or even inapplicable to, the explanation of the preceding case, it yet, as appears to me, will prove of much value in the elucidation of the majority of instances. Dr. Todd, in his Lumleian Lectures for 1849, contends for

the humoral origin of chorea and epilepsy; and the writer of a very admirable article on the "Physiology and Diseases of the Nervous System," in the January number of the *British and Foreign Medico-Chirurgical Review*, while examining, and in a great measure supporting Dr. Todd's views, extends them also to the protean disease, hysteria. The idea, as my readers are doubtless aware, is, that in these cases there exists a depraved and perhaps a poisoned state of the blood, whereby the nervous battery is irregularly or abnormally excited, and thus the phenomena of the disease are produced. To my mind, this appears a much more satisfactory method of accounting for the morbid manifestations, than the vague nonentities, nervous irritation, functional disturbance of the nerves, etc., to which they are usually referred. A short time ago I had, in my own person, a proof of the correctness of the general principle. I was suffering from a severe attack of hemicrania, the pain being seated in the right side of the head. When it was at its height, I was seized with a most unpleasant sensation throughout the whole of the left side of the body, and the extensor muscles of the left leg were excited to clonic contractions. The action was entirely automatic. I could control them by a determined effort of volition; but the moment the influence of the will was withdrawn, the motions recommenced, and the limb was gradually and forcibly extended to its full length. I observed, also, that there was a perfect absence of the feeling of muscular fatigue which accompanies voluntary movements. Now, in this instance, the exciting cause was, very manifestly, imperfect elimination of bile, which had existed for some days previously; and the attack was at once ended by a gentle mercurial alterative, which restored the right action of the liver.

Here, the disturbance of the nervous system was both slight and transient; but in the case to which I shall now briefly refer, it was of a very much more severe, and even, at one time, alarming character. The subject of it was a lady, who had been for many years in bad health, suffering from a complication of maladies, which it is not necessary to particularize. The attack for which I was consulted commenced as severely acute bronchitis. She was first seen by my friend Dr. Battersby, on Nov. 27, 1843, having been ill for some days. I was called in on the 30th. She was then apparently almost moribund, with a death-like countenance; orthopnœa; loud tracheal rattles, which could be heard in every part of the room; a dry tongue; quick, compressible pulse; and no strength to expectorate. From this very depressed state she gradually rallied, under the use of senega, wine, etc., and was able to relieve herself of a quantity of muco-purulent secretion. Her progress was fluctuating for several days, but on the whole, she appeared to gain ground slowly, though the brain was often oppressed, and there were fits of extreme restlessness, in which she sometimes rolled the head from side to side with great rapidity. On the evening of January 9th, she was found throwing her arms about violently, with rigidly extended fingers: she was sensible, but dull: the head was cool. Next morning, she had violent convulsions, and there was much stupor: during the day, the paroxysms became shorter, and in the evening, the spasms left the limbs; but the muscles of the face became frightfully affected, and there was almost trismus. These symptoms continued more or less for many days, but gradually passed off, and the patient satisfactorily recovered.

Now here, I apprehend, it is also abundantly clear that the blood was the element at fault. Our patient was habitually asthmatic; her lungs were emphysematous, and she had suffered from an inflammatory attack which nearly destroyed life by suffocation. That the blood must have been most imperfectly decarbonized, there can be no doubt; and that the secretions generally were in a most disordered condition, we had ocular proof in the unhealthy evacuations. Moreover, each temporary improvement was coincident with a free discharge from the stomach and bowels; and there was nothing either in the past history, or the immediate antecedents of the case, to render it probable that there was actual disease of the nervous centres.

The sequence of causation would, therefore, I imagine, be somewhat of this nature. The blood, not originally of the most healthy character (as was evidenced by the history of our patient, and more especially by the fact, that she was subject to frequent attacks of eczema), had become imperfectly arterialized from the long-continued and severe obstruction to the respiration. This half-venous blood, carried to the various secreting organs, proved an abnormal and insufficient pabulum, and was, in consequence, not thoroughly purified by the separation of the ingredients of the secretions: and being thus still further deteriorated, it acted as an unnatural stimulus to the nervous centres, disturbing, in Dr. Todd's language, their polar state, and thus inducing the convulsive phenomena.

May not something analogous to this be the operative agent in many cases of spinal irritation? May it not be found that these cases too, as well as those we have already noticed, own a true humoral origin? Much may be said in favour of such a view. The subjects of the disease are, for the most part, persons of weak constitution, delicate females, who do not menstruate properly; and in almost all, there are evidences of depraved nutrition, and of disordered function of important depurating organs. The phenomena of the disease too, the sudden shifting of the pains from one part of the body to another, the tendency to periodicity not unfrequently exhibited, and the common complication with the regular hysteric paroxysm, appear to me to point in the same direction. The character of the remedies found to be most successful in the treatment, and the general *juvantia* and *lædentia*, will equally receive their most correct exposition on such an hypothesis. Nor am I prepared to affirm that, even in cases like the one which has been the subject of this paper, where absolute organic change is found after death, the same explanation is altogether inapplicable; for it is quite conceivable that the continued stimulation may, under certain favourable conditions, induce abnormal nutrition in the organ thus acted upon, precisely as in some cases of gout and rheumatism, the *materies morbi*, directed during a long period to particular joints, leads to the deposition of what are called chalk-stones, and to other positive structural changes.

Torquay, May 1850.

TWO CASES SIMULATING DISEASE OF THE LIVER.

By ALEXANDER KNOX, M.D., Physician to the Dispensary, Strangford, County Down, Ireland.

Case I. Intestinal Concretion, simulating Disease of the Liver. Mrs. H., the wife of an officer in a dragoon regiment, had suffered much from bad health, and had, on several occasions, been under my care for severe and occasionally dangerous attacks of bronchitis. From change of residence and other circumstances, she had ceased to be a patient of mine; but on one occasion, being in Dublin, I was requested to visit her at Kingston, where she had been long confined to bed, by disease which was considered, in consultation, to arise from an affection of the liver. Her case, as I was informed, was considered hopeless, and her death was looked for as an impending event. She was certainly labouring under extreme debility, but not, in my opinion, affected with any symptoms denoting speedy dissolution. On careful examination, I ascertained that there were considerable abdominal swelling and partial obstruction of the bowels, and the diagnosis arrived at, on careful consideration, was to the effect, that the hepatic symptoms, which were evident enough, were not owing to any organic affection, or incurable disease of the liver, but symptomatic of the pressure and irritation of that viscus by some intestinal concretions, of the existence of which I fully satisfied myself. Being merely consulted as a friend, I did not, of course, interfere with the treatment, which appeared to be perfectly appropriate; but she was led to hope that her case was not, by any means, to be despaired of, and that if the intestinal obstructions were got rid of, there were good grounds to expect her ultimate recovery. She was, as I subsequently learned, ill for a considerable time, and a large Intestinal Concretion, the composition of which I could not ascertain, was at length expelled from the rectum, when perfect recovery took place, and she lived for several years afterwards.

Case II. Tumour in the Right Hypochondrium, simulating Disease of the Liver. Mrs. ——, the wife of a physician, had suffered from the symptoms of hepatic disease from time to time, combined with indigestion, and occasional very severe attacks of gastralgia. A solid persistent tumour had existed for a considerable period in the right hypochondriac region, which was supposed to be either a chronic enlargement of the right lobe of the liver, perhaps of the lobulus Spigelii, or else a biliary calculus. My attendance on her became necessary, on account of acute tenderness supervening at the site of the tumour, and a violent attack of acute symptomatic fever. She had, in fact, all the symptoms of enteritis, for which pretty active antiphlogistic treatment was necessary. Among the remedies employed, were full doses of calomel, followed by castor oil. During their exhibition, the supposed hepatic tumour shifted its ground, and then disappeared permanently from the position it had so long occupied. It was ultimately expelled per anum, and found to be a mass of indurated fæces, firmly agglutinated, constituting a specimen of the enterolithus scybalum of Good. Its nidus had probably been in the transverse colon: although I had satisfied myself of the continued existence of this tumour for several years, it remained

quiescent all the time, until the period alluded to, when from some cause or other it appears to have excited an attack of inflammation, which indirectly led to its expulsion. Perfect recovery followed the attack; and, at the distance of several years, there has been no appearance of a tumour in the site which it formerly occupied, nor any trace of fulness of the liver, or other symptom of hepatic disease. Attacks of dyspepsia, however, recur from time to time; but the gastralgia has greatly abated both in severity and frequency.

ON CONICAL CORNEA.

By W. WHITE COOPER, Esq., F.R.C.S., Senior-Surgeon to the North London Eye Infirmary, and to the Artillery Company, etc.

[*Concluded from last Number, p.* 419.]

Mr. James Dixon, Surgeon to the Royal Ophthalmic Hospital, Moorfields, has, like myself, devoted much attention to the subject of Conical Cornea. On the publication of the first part of this paper, he, in the most handsome manner, placed at my disposal the result of his observations; and I cannot but feel, that any value, which my communication may possess, is greatly enhanced by the contribution of so accomplished an ophthalmic surgeon as Mr. Dixon. The following are his remarks:—

"Conical Cornea particularly engaged my attention about six or seven years ago. The rarity of the disease, and the consequently limited opportunities that had occurred for investigating it anatomically, and the contradictory theories on the subject, made me curious to learn more of this *opprobrium medicinæ*. I hoped to be able to determine for myself the real nature of the morbid change, but in vain; and, in the absence of any original researches into its true pathology, the notes I now send can be only regarded as *mémoires pour servir à l'histoire*, rather than as history itself. I can at least offer you a complete table of the cases recorded at our hospital since its first establishment. You will observe that the disease is first mentioned in 1819; before that time it was probably classed with staphyloma.

"As regards the earliest notices of Conical Cornea, a curious mistake has been made by almost every writer on eye-diseases, from Wardrop downwards, in attributing to Leveillé the authorship of what he merely translated—namely, a note in Scarpa's *Treatise on Diseases of the Eyes:* but if the first edition of that work *(Malattie degli Occhi*, fo. Pavia, 1801), be referred to, the so-called 'note by Leveillé' will be found entire at page 215. Our own countryman, Ware, however, had described the disease so early as 1795, in his '*Appendix and Notes annexed to the third edition of Remarks on the Ophthalmy, Psorophthalmy, and Purulent Eye*' (p. 26), where he speaks of 'those rare cases, in which the cornea undergoes a change from its round figure, and assumes a conical or sugar-loaf shape'. For the cure of this, he says 'he had tried a variety of remedies—evacuation of the aqueous humour, followed by application of compresses;' but adds, that 'the cornea always resumed its projecting figure.

"It is uncertain whether the notorious John Taylor had really seen true Conical Cornea, when he designated a certain diseased condition of the part by the unmeaning term 'Ochlodes'. That the word was sonorous, and Greek, was quite sufficient to commend it to him whom Dr. Johnson cited as 'an example how far impudence could carry ignorance.'

"Burgmann's often-quoted case is curious for its absurdity; and the best explanation of it was furnished by a non-professional critic, as related in Himly's '*Diseases and Malformations of the Human Eye*' (*Krankheiten und Missbildungen*, etc., Berlin, 1843). 'The corneæ were black, as hard as horn, and hung down as far as the mouth. The learned have racked their brains to explain this phenomenon. Richter attributed it to expansion of the corneæ; Brandis, to the congestion produced by hanging; Blumenbach cites, in opposition to Brandis, a similar appearance in the eyes of a man whose head was cut off and then stuck on a pole; Heinlein thought that even in the latter case post-mortem expansion of the cornea might have occurred. The true theory of these Staphylomata is, doubtless, that of the Göttingen executioner—'the crows made them.'[1]

"CASES OF CONICAL CORNEA REGISTERED AT THE ROYAL LONDON OPHTHALMIC HOSPITAL (FORMERLY INFIRMARY), MOORFIELDS.

Year.	Patients	Cases of Con. Cornea.	Year.	Patients	Cases of Con. Cornea.
March 1805 to March 1806	600	None	,, 1827	4955	5
			,, 1828	5478	3
,, 1807	1526	——	,, 1829	5266	4
,, 1808	2126	——	,, 1830	5429	6
,, 1809	2357	——	1831	10550	10
March 1809 to Jan. 1, 1810	2179	——	,, 1832		
			1833		
Jan. 1 to Dec. 31, 1810	2907	——	,, 1834	10609	6
Jan. 1 to Dec. 31, 1811	2920	——	,, 1835	5154	Report not classified
			,, 1836	5016	3
,, 1812	3085	——	,, 1837	5586	Report not classified
,, 1813	3392	——			
,, 1814	3016	——	,, 1838	4874	2
,, 1815	3445	——	,, 1839	4891	2
,, 1816	3634	——	,, 1840	5355	10
,, 1817	3470	——	,, 1841	5521	5
,, 1818	3575	——	,, 1842	6086	7
,, 1819	3701	8	,, 1843	6572	None
,, 1820	3704	7	,, 1844	6874	12
,, 1821	3383	4	,, 1845	7005	4
,, 1822	3608	4	,, 1846	7010	9
,, 1823	3523	6	,, 1847	7672	5
,, 1824	3711	3	,, 1848	8382	6
,, 1825	4078	2	,, 1849	8418	2
,, 1826	4366	4			

I add the names of such patients in the annexed list, as came under my own care: 1844, I. John Cottrell, aged 34; II. Anne Child, 33; III. Catherine Richardson; IV. Henry Burgess, 24; 1845, V. Samuel Lewis, 23; 1846, VI. Wilhelmina Jackson; VII. Isabella Barnes, 27;

[1] I am entirely of this opinion, W. W. C.

VIII. Sarah Corsan, 31; IX. Maria Reeves; 1848, X. Robert Moore, 28; XI. Emma Read, 22; XII. Jane Hammond, 18; XIII. Sarah Habberfield, 27; 1849, XIV. Maria Burr, 25.

"I have found a table on the following plan useful for registering, within a small space, the chief points of interest in cases of Conical Cornea.

Name Age	Occup.	Right eye.	Left eye.	Opacity at Apex of Cone.		Age when first noticed by patient.	Reading focus in inches.		Improvement from			
									Concave glass.		Small aperture.	
				Right.	Left.		Right.	Left.	R.	L.	R.	L.
1844. J. C. 34	Paint.	Compl.	Partl.	0	0	29	0	7	0	0	7	12
1848. E. R. 22	Servt.	Compl.	Compl.	0	Dense		2	0	0	0	6	0

"Causes. The various opinions as to the changes which a cornea undergoes in becoming conical, may be classed under three heads:—protrusion, from over-secretion of aqueous humour; central thickening; central thinning.

"The first opinion, advocated by Lyall and others, is altogether hypothetical, and is disproved by the fact, which you must have constantly noticed, that in even extreme cases of conical deformity, the plane of the iris is vertical. Any pressure strong enough to push the firm cornea forwards, would surely be sufficient to thrust the yielding iris backwards; and the concave form which the iris really assumes in true inflammatory dropsy of the anterior chamber, is, as far as my own experience goes, never accompanied by any corresponding prominence of the cornea.

"No one, I believe, who has actually dissected a Conical Cornea, has found the centre thickened. Jæger, of Erlangen (not F. Jæger, the Vienna professor) has, on the contrary, described that part as being extremely thin; and his description (in Schmidt's Thesis), short as it is, is the fullest I can meet with.

"The difficulty of assigning a constitutional cause to the disease must be very great, when we consider the widely different aspects of those who are the subjects of it. A greater contrast could not be found than between No. X and No. XII in the foregoing list: the former, a pale, unhealthy-looking London workman; the latter, a fresh-coloured, robust country girl.

"The statement, advanced by Sichel—that Conical Deformity of the Cornea is *always* preceded by a central ulcer—needs to be confirmed by careful observation: but I may quote one case which seems to support this view, and is otherwise remarkable as an instance of Conical Cornea at a very early age. Priscilla Saunders, aged four years, was brought to me April 9th, 1847, with an opacity at the centre of the left cornea, the result of a small ulcer which had cicatrized. The cornea was *very slightly* conical. On February 8th, 1849, she was brought again, the sight of this eye having become very defective. I found the small cicatrix in the same state as before, but the cornea had assumed a *completely* conical form. Had I now seen the case for the first time, I might have thought that the central opacity had been the result of

friction upon the apex of the cone. The child saw perfectly with the right eye, but could not distinguish large letters with the left, although the opacity hid only a portion of the pupil.

"On the other hand, in the case of Cottrell (No. 1. *supra*), the corneal deformity was not preceded by any inflammation, and it commenced when the patient was of an age to notice and describe his symptoms. He had been fond of shooting, and always shot from the right shoulder, until he found himself becoming short-sighted with the right eye: he was then about twenty-nine, and the short-sightedness gradually increased, until he came to me with a cornea as conical as any I ever saw.

"As regards the TREATMENT of Conical Cornea, I have never found any of the astringent drops and lotions, recommended by ophthalmic writers, of any service whatever. Operative means I have always avoided. A metal plate with a small hole in it, or, what is better still, a transverse slit, fitted into a spectacle frame, has been the best mechanical contrivance I could find, and of more service than any form of concave glass. I have, however, met with two or three cases of conical deformity, seemingly uncomplicated with any other disease of the eye, in which the perforated plate and the concave glass were equally unavailing.

"The treatment I should feel least inclined to try, is that termed by its advocates 'the emeto-purgative plan,' which consists in giving the patient a scruple of sulphate of zinc, and two or three drachms of sulphate of magnesia, *daily for the space of a year or more.* It seems strange to give these substances *together;* for, if the patient is to be purged, why give him that which will cause the purgative to be vomited up? If the stomach, after a certain time, gets so accustomed to the sulphate of zinc as to retain it, the treatment becomes simply 'purgative', without the 'emeto'. How will the daily scruple of the sulphate of zinc affect the stomach, when it ceases to produce sickness? I cannot answer the question from my own experience; but I have seen a case where the system was followed, and at the end of twelve months the patient's corneæ were precisely in the same state as at first.

"*London, May 2nd,* 1850." J. D."

TREATMENT. The various modes of treatment recommended for Conical Cornea are now to be considered.

ARTIFICIAL PUPIL. The first who proposed to assist vision in this disease, by extending the pupil to one side, was the late distinguished surgeon, Mr. Tyrrell. "Within the last six years," says he, "I have succeeded in relieving such cases to a considerable extent by a plan so simple, that I am surprised that it had not been previously tried. It consists in altering the position of the pupil, and removing it from beneath the centre of the cornea, or that part which has its figure most changed, to near the margin, where the least change has occurred; the error in refraction is consequently much lessened, and the vision becomes more perfect and the focus lengthened." Mr. Tyrrell states, that he had performed this operation seven or eight times with benefit, which, in two instances, was very marked. It is to be regretted, that a more particular history is not given of the cases. Three, I succeeded in tracing. Of these, one had recovered good vision, a second derived

no ultimate benefit, while in the third the eye was lost by destructive inflammation. Thus, however encouraging the results might have at first appeared, the expectations, in two cases at least, were not destined to be realised. The experience of some authorities of eminence, with whom I have been in correspondence, is as follows. Dr. Butter, of Plymouth, states, that "we have tried to drag the pupil to one side of the centre, by making a small opening in the cornea and introducing a barbed hook, but seldom I think, with very marked success." Mr. Barton, of Didsbury, has treated this disease by various operations, viz.: "evacuating the aqueous humour frequently, by puncturing the cornea with a needle, or cataract knife; extracting the lens, enlarging the pupil at the lower margin by cutting off a piece of the iris, or strangulating it in the incision, according to the circumstances which have presented during the operation. The benefit, however, resulting from any of these operations, has never been commensurate with the risk, and many cases were rendered worse by the treatment." Mr. Neill, of Liverpool, has met with better success. "You ask me," says he, "of my means of cure. There were three cases cured by me: in one, after pursuing the system of puncturing the cornea every two or three weeks, evacuating the aqueous humour, and using pressure, the eye became flattened and vision was useful; the other two cases had each the cornea punctured and a fibre of the iris removed, an oblong pupil being thus formed at the outer and lower edge of the cornea, where it was tolerably flat, and in both these cases very good sight was gained. This practice I shall hereafter pursue, when two eyes are similarly affected, or when one is lost and Conical Cornea exists in the other. Such a case I have now under my care. The hostess of a large hotel, in opening a soda-water bottle, which burst in her hand, had one eye dreadfully torn. The other eye has a Conical Cornea. When the inflammation of the wounded eye is sufficiently removed, I will proceed to alter the form of the pupil in the other, and have no doubt that the sight, in this case also, will be rendered useful." Mr. Wilde, in his admirable Report on the Progress of Ophthalmic Surgery,[1] gives an interesting case, illustrated by a woodcut. "The only case," he says, "in which we have ever produced permanent benefit, was one in which we performed an artificial pupil, as recommended by the late Mr. Tyrrell. In this instance, the lady was scarcely able to find her way through the streets. She had consulted the principal oculists in these countries, and had undergone several courses of treatment. She had been for a long time under the care of the late Mr. Wardrop, who tapped the cornea several times. In the summer of 1842, assisted by Mr. Cusack, we performed an artificial pupil in her right eye—not as recommended by Mr. Tyrrell, by cutting out a portion of the iris, but by drawing its pupillary margin through an incision in the cornea, made close to its insertion with the sclerotic externally. This lady now reads very well by holding the book towards the right side." The late Mr. Walker, of Manchester, informed me that "in one case in which both eyes were affected to an extreme degree, I first performed the operation (as practised by Middlemore and Tyrrell) of displacing the pupil and afterwards extracting the

[1] Dublin Quarterly Journal of Medicine, vol. xxxiv, p. 491.

lens. That operation answered beautifully in one eye; but the other eye was attacked with violent inflammation, and was destroyed. I should not hesitate again to perform that operation in a suitable case. All the cases I have since seen, have been such as have only had one eye extremely affected, the other being only slightly so; and consequently I have not felt justified in recommending an operation of that magnitude and importance. The mere displacement of the pupil I do not think much of." Mr. Walker was so good as to favour me with the particulars of the case alluded to, which possesses considerable interest.

Case. Joshua B., æt. 47. His sight had begun to fail after an attack of inflammation, and during seven years had gradually become worse. In August 1841, he placed himself under the care of Mr. Walker. He could find his way about, and read moderate sized type at a distance of two inches; with the right eye, when the lids were almost closed, he could read at a greater distance, but not so with the left. A luminous body appeared to be multiplied ten or eleven times, but no chromatic aberration was observed. This multiplication of images was confined to luminous objects, and these appeared single when the eyelids were nearly closed; the point of the cone in each eye was opaque—the opacity being densest in the left. Neither concave glasses nor a pinhole improved vision. On the 25th September, 1841, Mr. Walker punctured the cornea of the left eye and removed a portion of the iris, extending the pupil to the inferior margin of the cornea; very little irritation followed, but the amendment of vision was only such as to increase the reading distance to three inches. Mr. Walker now removed the lens. Some trouble was subsequently experienced from opaque capsule blocking up the pupil, but the ultimate result was, that the patient nearly recovered the perfect sight of the eye. He could read small print at the ordinary distance, and see surrounding objects a great way off; moreover, the conicity of the cornea was almost entirely removed. Similar proceedings were adopted towards the right eye, but there followed destructive inflammation, and the eye was lost.

Dr. J. C. Hall tells me that he has "seen no good from operations, with the exception of frequently evacuating the aqueous humour, not even from dislocating the pupil"; and other correspondents have expressed themselves as adverse to the operation. Dr. Billett, of Taunton, says, "I once made an artificial pupil through the sclerotic, which enabled the patient to see a strong light, which was all that he asked for." This case, however, could not have been one of Conical Cornea, in the strict sense of the term; for in such cases the perception of light is not extinguished.

My own experience of the value of an artificial pupil extends to three cases, which I will proceed to relate. It will be seen that in one there was improvement; in the second also improvement, but very slight; whilst in the third neither the simple extension of the pupil, nor the combination with it of removal of the lens, assisted the vision of the patient.

Case I. Artificial Pupil. Arabella Thomas, aged 19, a delicate looking girl, applied to me May 5th, 1848. For many years her vision had been imperfect, especially with the left eye, which had indeed become almost useless, as she could only discern objects by hold-

ing them quite close to the outer side of the organ. The sight of the right eye, though very obscure, was better than that of the left. Luminous objects were multiplied and surrounded by belts and rays. The left cornea was very conical, the apex of the cone presenting a dimple surrounded by a nebulous haze; a magnifying glass displayed several irregularities and facets, especially on the upper part, near the apex. The right eye presented the phenomena of the disease in a less degree. On dilating the pupil with atropine, and causing her to look through a pin-hole, it was found that when the aperture was opposite to the lower and outer third of the expanded pupil, a very decided improvement in her sight took place.[1] She could then read with facility at five inches, whereas, before, she could only make out letters at two inches distance. It was then decided to extend the pupil at the point mentioned. On the 28th of May, an incision was made with a curved Scott's knife, just beneath the transverse diameter of the cornea at the outer side, and a fibre from the margin of the pupil, being drawn out with fine forceps, was snipped off. There was a little hæmorrhage into the anterior chamber, which speedily subsided under the influence of cold.

No ill consequences followed the operation; and, after the lapse of three months, the patient could read and work at the distance of four inches from that eye, and could discern features tolerably distinctly at four feet.

Case II. Artificial Pupil. Jane Robertson, aged 27, of delicate and poverty-stricken appearance, came under my notice January 11, 1848. She was a milliner, but for nine months she had been unable to work from imperfection in her vision. About eighteen months prior to her application, she first perceived a difficulty in distinguishing objects clearly with the right eye when looking directly at them, but by turning her head a little on one side they appeared clearer; at the same time she was much annoyed with muscæ volitantes, and occasionally felt an uneasiness and fulness in the eye. The sight gradually became worse, and in about six months the left eye was in like manner affected. The difficulty in discerning objects increased, until she was obliged to hold her work quite close to her eyes and to look at it obliquely. Being dependent on her needle for subsistence, she was compelled to work many hours each day, until at length she could no longer see, and was obliged to yield to her rapidly increasing blindness.

The unmistakeable sparkle of the eyes at once proclaimed the nature of the case; for, in each, Conical Cornea was well marked. The apex of the right cone was somewhat more opaque than that of the left, and each cone presented a dimpled point. She could only discern capital type by holding it at about an inch and a half from the eyes, but through a pin-hole, could see it at three inches. On dilating the pupils with atropine, there was some improvement, which decided me to attempt relief by an artificial pupil. On the 20th January, I operated on the right eye, making an incision at the outer margin of the cornea. A considerable gush of aqueous humour took place, the cone collapsed, becoming some-

[1] *Secale cornutum*, used as a snuff, has been said to cause contraction of the pupil. I have tried it in many instances of dilatation of the pupils, natural and artificial, but have not observed the effect in question.

what corrugated, and the iris fell forward. With a pair of fine forceps, the margin of the pupil was drawn out, and a few fibres snipped off. On the following day the cornea was moderately filled, and there was a decided improvement; but the reduction of the size of the cone being considered, little stress was laid on the amendment. The recovery was rapid, and the vision was certainly somewhat improved, but not sufficiently so to enable her to work, and I did not therefore think it desirable to adopt any further operative measures.

Case iii. Artificial Pupil and Destruction of the Lens. Anne Reeder, aged 17, was sent to me from the country, in September 1847. Her head was unusually long in the antero-posterior direction, as if she had suffered from hydrocephalus. The vision of her right eye had been imperfect from early youth, and had gradually become useless; the vision of the left eye was also imperfect; the eyes were remarkably deeply set, and the palpebral fissure small; the conical form of the right cornea was strongly marked, that of the left decided, but less prominent than the right; the apices of both were slightly turbid; the surface of each was smooth, and neither halos nor multiplication of images had been perceived; vision was not improved by a pin-hole, nor by any kind of lens.

On the 22nd of October I made a puncture at the inferior third of the outer side of the right cornea, and drawing out a small portion of the margin of the pupil, snipped it off. There was considerable hæmorrhage into the anterior chamber, but it yielded to the application of cold. So rapid was her recovery, that she left the Eye Infirmary on the 29th of October, with a very good artificial pupil, but without any amendment in her sight. She came in again on the 8th November, and the recovery from the previous operation was so complete, that I determined to try the effect of destroying the lens, as recommended by Mr. Walker and others. On the 10th November the lens was destroyed with a cutting needle; no unpleasant symptoms followed, and the fragments became in due time absorbed, but there was no material amendment in her sight, either then or in June 1848; since which time I have not seen her.

If artificial pupil be contemplated, it should be ascertained whether dilatation of the pupil improves the sight, and whether there is any point through which the vision is better than elsewhere. When irregularities of the surface exist, some spots are freer than others, and here the cornea is best adapted for the transmission of visual rays.

Removal of the Crystalline Lens. In reference to this operation, it must be borne in mind, that perfect vision is due to the combination of accuracy of form of the cornea and crystalline, with that beautiful arrangement of the fibres and layers of the lens, by which the rays undergo gradual refraction in their course through it, and are united in foci exactly upon the retina. The imperfection of vision in Conical Cornea, is caused less by alteration in the actual refractive power in the eye, than by the vicious manner in which refraction is performed; the alteration in figure of the cornea prevents the formation of foci at the proper points, and causes unbounded confusion in the images depicted on the sentient membrane. Though, by removal of the lens, the refraction within the eye is lessened, the harmonious bending of the rays

accomplished by the crystalline, cannot be attained, nor can the condition necessary for the formation of images be recovered. It is justly remarked by Dr. Pickford, in his able treatise, that the sphericity of the cornea, so to speak, is totally lost, saving so much of its obtuse apex as approximates to the form of the healthy cornea; and that we have no longer to treat an ellipsoid of revolution, but a plane surface, —the slant sides of the cone. Thus the alteration in the conditions for refraction anterior to the lens, is not of a nature to admit of compensation by the removal of that body.[1]

Destruction of the crystalline lens was proposed with great confidence by Sir W. Adams, as a cure for Conical Cornea. The cases which he has related are highly flattering to his skill; but, independently of the optical objections, and the formidable character of the proceeding, it has been strongly condemned by high authorities. The late Mr. Tyrrell said, "It was thought that the removal of the crystalline lens, by getting rid of that convex and highly refractive body, would afford better vision in such cases; but the practice has not in the least degree supported the theory; for it does no good." Mr. Lawrence "would not think of proposing any such operation, unless the affection had gone so far as to render the eye useless, and he would then expect no good from it. The proceeding has not been employed with advantage in any instance." Dr. Pickford is of opinion, that the removal of the lens is uncalled for, injudicious, and indefensible.

That the removal of the lens is sometimes of service, is proved by the following evidence; but my impression is, that such cases form the exception, not the rule.

In 1847, Dr. Butter, of Plymouth, wrote to me as follows: "I couched a woman, thirty years since, who had cataracts and Conical Cornea. She has seen well ever since, with or without flat (?) glasses." In a similar manner I was informed by Dr. Robertson, of Edinburgh, "I have operated in one case of cataract, conjoined with a highly Conical Cornea. The apex was irregular on its surface and slightly opaque. The patient could afterwards read the smallest print, the book being held somewhat to the side, but in looking at any object held directly in a line with the centre of the cornea, the centre of the object was scarcely visible. The glasses usually required after the removal of the lens, were, as was naturally anticipated, injurious, the conical form of the cornea compensating for the loss of the lens. The operation performed was that of reclination." When speaking of artificial pupil, I have mentioned a case related to me by the late Mr. Walker, of Manchester, in which he combined extraction of the lens with artificial pupil with success; but he particularly mentions, that the conicity of the cornea was almost entirely removed by the operation,—doubtless by the section of the cornea.[2]

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[1] The figure of the healthy cornea is an ellipsoid of revolution about the major axis, through which the curvature of all its sections is equal, and it presents in every direction an arc of 96° 55′ 20″.

[2] Mr. Estlin of Bristol thus writes: "One case occurred to me, where the lens of an eye, with Conical Cornea, was wounded by a needle, which ruptured the capsule and produced a cataract, which became absorbed by the effect of the accident which occasioned it. The loss of the lens improved the power of seeing."

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Though doubting the efficacy of the proceeding, I considered it my duty, after the foregoing statements, to give the patient the benefit of the chance in two instances, and am bound to state that the result was not sufficiently encouraging to induce me to recommend the operation; unless, of course, cataract should chance to be combined with Conical Cornea, in which case it would be perfectly justifiable.

Case iv. Destruction of the Lens. Luke Gibson, carpet-weaver, æt. 23, came under my care in March 1847. Both eyes presented Conical Cornea, the right being more prominent than the left. The usual symptoms were present, and he found so much inconvenience, that he was eager for any means which afforded a chance of relief. All milder measures having failed, and there appearing to be some cloudiness in the right lens, I determined to try the effect of removing that body. The anterior operation for solution was therefore performed with a broad needle, on the 26th April. On introducing the needle, there was a considerable gush of aqueous humour, and the cone became flaccid. After completing the operation, I availed myself of the opportunity of examining the collapsed cornea, and satisfied myself that, near the apex, it was scarcely thicker than silver paper. Absorption proceeded satisfactorily, but it became necessary to repeat the operation on the 27th July, to remove some fragments of capsule which obstructed the pupil. On the 26th August the aperture was clear, but I was sorry to find that little, if any benefit, had been gained, nor were glasses of more use than before the operation. The rapidity with which the aqueous humour is secreted, was well shown in this case, for the cornea was plump and distended twenty-eight hours after the operation.

The second case, that of Anne Reeder, has been already related.

Removal of Segments of the Cornea. One case only, in which this step has been adopted, has fallen under my notice. It was communicated to me by Mr. Maling, of Sunniside, as follows: "I discharged the aqueous humour by making a section of the lower half of the cornea, and cut away a small portion of it, with a view of diminishing the anterior chamber; but the result did not answer my expectations, although the patient was certainly less myopic. The apex of the cone, after the operation, inclined downwards. I wished to operate in a similar manner on the upper portion of the cornea, but my patient would not submit."

By removing the apex of the cone somewhat to one side, especially the inner, and by combining with this treatment, the use of a fissured diaphragm, with or without a lens, benefit may probably be derived.

The *Bulletino delle Scienze Médiche*, of Bologna, for December 1839, contains the particulars of a case of Conical Cornea, treated in an unusual manner by an Italian surgeon, M. Fario. With a double-edged cataract knife, he made an incision at the outer side of the cornea, and a second, meeting the first at the point, in the form of the letter V reversed. The flap was cut off with scissors. There resulted a gap, through which the aqueous humour continually drained. The lids were closed with sticking plaster, and the patient kept in bed in a dark room for eight days, no other dressing being applied to the eye. At the expiration of that time, the lids were opened, when the breach in the cornea was found closed, and the cornea itself a little flattened. The same

operation was repeated at the lower part of the cornea with a similar result, but the flow of the aqueous humour continued longer this time, and the iris became entangled in the wound, but withdrew under the influence of belladonna. A third excision was performed at the upper and inner part of the cornea; and it is stated that the eye became flattened, and the patient cured.

The main objection to such a proceeding as that described, is the great risk of prolapse of the iris. It occurred in the present instance, and although the membrane is said to have retracted, such an event is by no means to be expected after it has been prolapsed eight or nine days; belladonna would then have but little effect in causing its retraction. Another objection is, the leucomata that would be produced by the cicatrices of the wounds. The new material formed to fill up the gaps in the cornea being fibrous instead of lamellated, and opaque instead of translucent, would leave permanent cicatrices of such a magnitude as would be unsightly, and obstructive to vision.

Puncturing the Cornea. This, as might be expected, has been resorted to in a great number of instances, but has failed to afford relief. I know of no more marked illustration of the rapidity with which the aqueous humour is secreted, than is presented under such circumstances; on the needle being introduced, the fluid spirts out freely, and the cone collapses. If the eye be examined about twenty-six hours afterwards, the cone will usually be found plump and distended: when about two-thirds filled, there is often marked improvement in the sight, but the hopes thus raised are dispelled in a few hours. Mr. Evans, of Belper, says, "I have treated about a dozen cases of Conical Cornea, I am sorry to say, without materially benefiting any of them. The treatment of my early cases consisted in evacuating the aqueous humour, in one case more than ten times, astringent lotions, etc. Latterly, I have given up all local remedies as being utterly useless in my hands, and confined the treatment to the improvement of the general health." Not more encouraging is the report of Mr. Soden, formerly of Bath. "In the course of thirty five years that I have been connected with the Bath Eye Infirmary, I think that I have not seen more than fourteen or fifteen cases of Conical Cornea. In two cases, I tried frequent evacuation of the aqueous humour, in the hope that the cornea might be somewhat flattened by the anterior chamber being emptied; but no advantage ensued, although in one instance I repeated the operation about thirty times, at intervals of two or three days. No injury, however, resulted from this treatment." I might multiply such accounts, but these examples are sufficiently confirmed, as they are most fully, by my own experience; for though evacuation of the aqueous humour is of service when combined with fluid pressure, it is absolutely useless by itself.

Pressure. M. Desmarres thus writes: "Some have tried puncture of the cornea to evacuate the aqueous humour; if, with this, they had joined a compression, methodical, immediate and long-continued, as we daily use with opaque staphyloma, and as we have practised with great advantage in two cases of transparent staphyloma, such means would, perhaps, have been attended with the best results.[1] Puncture of the cornea, followed by direct compression, appears to me the best means

[1] Desmarres, L. A. Traité Théorique et Pratique des Maladies des Yeux.

known for the treatment of this disease, but the compression should be light, exactly made, and long continued." The correct principle is embodied in these views of M. Desmarres. Strong pressure by a solid body is injurious. It is support, rather than actual compression, which is needed. The thin and weakened cornea, unable to resist the pressure from behind, has been projected into a cone, and is incapable of recovering itself unless relieved from that pressure. Evacuation of the aqueous humour affords merely temporary relief, for the membrane is speedily again distended. John Hunter thus wrote: "We find very different effects from the same quantity of pressure; for when from without, pressure rather stimulates than irritates, it shall give strength, and produce an increase of thickening; but when from within, the same quantity of pressure will produce waste, for the first effect of pressure from without, is the disposition to thicken, which is rather an operation of strength; but if it exceeds the stimulus of thickening, then the pressure becomes an irritator, and the power appears to give way to it, and absorption of the parts pressed takes place."[1] It may be doubted whether this doctrine is altogether correct; for, as pointed out by Professor Paget, the results of pressure, whether from within or from without, appear to depend on its constancy or occasional application. In Conical Cornea, the pressure should be constant, but not limited to the apex of the cone, or it will excite irritation; it should be so managed as to afford firm support to the whole cornea, thus counteracting the force of the muscles of the globe, removing the tension from the weakened membrane, and placing it in the most favourable condition for restoration to its natural thickness and figure.

Fluid pressure alone can perform this satisfactorily, for if this be properly applied, every part is equally supported, and the support is maintained under all circumstances, movements, and positions. I endeavoured to carry out these principles in the following manner. An apparatus was constructed, consisting of an air-cushion of fine membrane, fitted to the orbit and acted on by a spring which passed half round the head, the point of counter-pressure being the occiput. The spring was of just sufficient strength to cause as much pressure on the eye as could be borne without inconvenience, and it was supplied with an adjustment to increase or diminish the force. Anterior support being thus provided, the pressure from behind the cornea was removed by letting out the aqueous humour. Immediately on its ceasing to flow, the apparatus was applied. Could the air-cushion have been made impervious to moisture, and perfectly air-tight, the improvement which took place in one case, after three weeks' trial, leads me to believe that much benefit would have been derived, but, unfortunately, the cushion invariably collapsed after a few days' wear. Vulcanized india-rubber, or some form of gutta percha, may, perhaps, answer better, but no description of animal membrane is adapted for the purpose. I ascertained, however, that the pad could be worn immediately after the cornea had been punctured, without exciting the least pain or irritation. If a perfect cushion can be obtained, its use should be persevered in for at least two months, the cornea being punctured from time to time. With this treatment, careful attention should be paid to the general health, strength and tone being imparted

[1] HUNTER'S Works. Edited by James F. Palmer. London: 1837. Vol. iii, p. 466.

if needed, and congestion abated if it appear to exist. The various preparations of iron with aloes and myrrh, and the carbonate of manganese (of which I can speak favourably), are indicated in the first of these conditions. Counter-irritation by blisters and rubefacient liniments, is best calculated to remove the second.

Emeto-Purgative Treatment. This practice was introduced by Dr. Pickford, and advocated by him in a work of remarkable ability.[1] The principles which have guided him are thus laid down. "I believe Conical Cornea to depend upon some disturbance in the functions of the great sympathetic, spinal nerves, and par vagum, producing, through the medium of the lenticular ganglia and fifth pair of nerves, faulty action of the nutrient capillaries and absorbent vessels of the cornea itself. Emetics and purgatives, by the powerful influence which they induce upon the gastric associate and consensual nerves, restore the healthy functions of the weakened nutrient and absorbent vessels, the result of which is a slow but progressive retraction of the diseased corneal growth, and a consequent restoration of vision." The medicines recommended, are a scruple of sulphate of zinc combined with half an ounce of sulphate of magnesia, to be taken every morning, or less frequently according to circumstances. Besides the cases recorded in the work, I am indebted to Dr. Pickford for the results of his further experience to 1848. "Since the publication of my paper on Conical Cornea, I have had many opportunities of treating the disease. The result, so far as the treatment has gone, has been most satisfactory, but I shall not attempt to conceal the fact, that patients become exceedingly tired of so disagreeable and so lengthened a remedy, and are disposed after a time to intermit it. When this has been the case, I have invariably observed an increased prolongation of the corneal cone, or an increased opacity of its apex. To say the least of it, my remedy has the power, when taken ever so irregularly, of keeping the disease in check, or of arresting it altogether. The late Mr. John Scott told me that he had successfully adopted my plan of treatment. In no instance have any ill effects followed the lengthened use of the emetics; on the contrary, the general health and strength have invariably improved. I have now a young woman under treatment, in whom I tried the nauseating effect of the remedy merely, short of vomiting; but under this modification the disease increased, and at her earnest solicitation the full effect of the medicine was again resorted to."

In two instances in which I attempted to give the emeto-purgative treatment a fair trial, the patients were of opinion that the remedy was worse than the disease, and neither argument nor persuasion could induce them to follow it up for a sufficient length of time to enable me to judge of its real merits. It will be seen that Mr. Dixon has formed a strong opinion on the subject.

Local Applications.[2] These comprise two classes, simple astrin-

[1] Pickford, J., M.D. On Conical Cornea. Dublin: 1844.

[2] Just before going to press, an opportunity was afforded me of perusing the paper by M. Sichel, in the second supplement of the *Annales d'Oculistique*. M. Sichel is of opinion, that Conical Cornea is invariably the result of ulceration, which weakens the cornea; and in proof of this, he asserts that a small cicatrix is *constantly* to be found at the apex of the cone. This is at variance with the experience of

gents and escharotics. With very rare exceptions, little or no benefit has resulted from such remedies; every known combination seems to have been tried and to have failed. The most favourable reports are those of Mr. Ware, Mr. Gibson, Mr. Lyall, and Mr. Gervis. Mr. Ware states: "In some instances I have punctured the cornea and evacuated the aqueous humour, after which, by the application of thick compresses to the outside of the eyelids, I have endeavoured to counteract the morbid propensity; but, when this humour has been regenerated, which usually takes place in a short space of time, the cornea has always resumed its projecting figure. The greatest relief I have hitherto given, has been by the application of a few drops of strong infusion of tobacco; by a perseverance in the use of this remedy, three or four times every day, the conical appearance of the eye has in a few instances been diminished and the patient's sight greatly mended."[1] Mr. Gibson, of Manchester, used collyria of alum and oak in four cases, and in these no increase took place; one patient, indeed, thought his vision was improved. As, however, the disease often comes to a standstill after having arrived at a certain point, but little stress can be laid upon the influence of the treatment in these cases.

A curious case is related by Mr. Lyall. A young woman suffering from Conical Cornea in both eyes, was suddenly attacked with severe headache, great pain in the left eye, and a copious discharge of scalding tears. The apex of the cone became quite opaque in two days; shortly after, Mr. Lyall applied nitrate of silver, when violent action was excited and the opacity partly disappeared. Mr. Lyall then punctured the cornea several times, and used strong astringent collyria, the result being diminution in the size of the cone and decrease in the opacity; but (it is important to remark), the vision was not improved.

Mr. Gervis, of Tiverton, has been fortunate in his management of this disease. A young woman at 25, had suffered for two years from Conical Cornea in the right eye, and has been under medical treatment for a year and a half. Mercury had been exhibited freely, and had produced much debility. The plan adopted by Mr. Gervis was continued counter-irritation by means of blisters, full doses of carbonate of iron for two months, compound galbanum pill, and liberal diet. The cornea was several times punctured, and the cone swept with nitrate of silver thrice a week. Some opacity of the projection resulted,

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Mr. Dalrymple, Mr. Dixon, and myself. We have each repeatedly seen instances of Conical Cornea, in which no opacity whatever existed.

The treatment recommended by M. Sichel, to give solidity to the weakened membrane, is as follows. The projection is to be touched once or twice a day with *vinum opii*, and the lids being immediately closed, are to be bathed with cold water. Subsequently there may be used with this, an ointment of red or white precipitate, ten or twenty grammes to two grammes of lard. Every two or three days, if the eye will bear it, a pencil of nitrate of silver is to be swept lightly over the opacity, especially the summit of the cone, but not over the sides. The surface having been wiped with fine rag, a little cerate is to be applied. These cauterizations may be continued during one or two months, being suspended from time to time, if necessary. Should the progress of cure be slow, and the cone large, puncturing and compression may be employed, the one alternating with the other, and with the cauterization. Measures for the improvement of the general health should be combined with this treatment. We are not aware that this practice has found favour on this side of the Channel, nor can we speak from experience of its efficacy.

[1] Ware, Jas. Chirurgical Observations Relative to the Eye, vol. ii, p. 77. 1805.

and the unguentum hydrargyri nitrico-oxydi was applied daily to the eyelid. At the expiration of three months, the cornea had recovered its natural shape, and the sight was completely restored. In another instance similar treatment, in combination with emeto-purgatives, rendered much service. To the judicious combination of general treatment, with local remedies, must the happy result of these cases be ascribed, rather than to the predominating influence of any application in particular.

It occasionally happens that the apex of the cone will become opaque in cases of old standing, from some slight exciting cause quite independent of friction of the lid. Such attacks are amenable to treatment, and it is important that the opacity should be speedily removed. The following case, for which I am indebted to my friend Mr. Dalrymple, is a good illustration of these attacks, and the means by which they are to be arrested.

Case v. Opacity removed by Lotions of Acetate of Zinc, and Iron internally. A lady, aged 35, consulted Mr. Dalrymple on 18th March, 1850. She had suffered from Conical Cornea for twelve or fifteen years, and some years ago consulted many eminent men without relief. Until lately she had been able to read with either eye, at two inches focal distance. The cone was strongly developed in the right eye, but perfectly transparent. The left cornea was still more sharply conical, and until within three weeks of the above date, was also clear. She supposes that she caught cold during the recent severe weather, for, without any redness of the eye, opacity supervened, invading the apex of the cone of the left eye; she had been in the habit of reading over much, her health was feeble, and circulation languid. A doubtful prognosis was given as to the probability of the opacity becoming absorbed, but she was recommended to take 10 drops of the tinct. ferri sesquichl. thrice a day, with aloes and myrrh, and to frequently drop into the eye a collyrium, containing one grain of acetate of zinc to an ounce of distilled water. Twelve days afterwards, she reported by letter, that the opacity had disappeared, and that she had begun to see as well as before the attack.

Nitrate of Silver and Tincture of Iodine to the Eyelids. Mr. Smith, of Southam, speaks favourably of this description of counter-irritation: "In two cases," says he, "I have given considerable satisfaction by the application of argenti nitras, on the external surface of the upper lids, and so keeping up a little scaly eruption or desquamation of the skin: one girl found great relief, having suffered from the complaint for two years." In two cases in which the disease was clearly connected with struma, and was accompanied with intolerance of light, I made trial of the daily application of the tincture of iodine to the lids with decided benefit to the photophobia. It may be remarked, that this remedy is of great value in ordinary strumous ophthalmia.

Hydrocyanic Acid Vapour. To this I gave a full trial in several cases. The only effect was diminution in the opacity when such existed.

Electro-Magnetism. No visible change followed the use of this agent, though persevered in for several weeks.

Optical Apparatus. The ingenuity of opticians has been severely taxed, to endeavour to remedy the defective sight in Conical Cornea, by artificial means. It being found that in some cases vision was improved when looking through a pin-hole, various forms of apparatus have been

constructed on this principle. Mr. Travers has recommended a frame of black wood, half or a quarter of an inch in depth, having a small aperture; opake diaphragms have been varied in form, and pierced with a fine slit in the centre, or removed somewhat to the side. In several instances, I have seen decided benefit from the use of such an apparatus, either singly or combined with lenses. The diaphragm should be a thin plate of horn or metal, fixed in a spectacle frame. No precise rule can be laid down as to the size, direction, or position of the aperture, for there are scarcely two cases precisely alike, and each requires to be carefully tested with apertures of various forms and dimensions. Such an instrument improves vision by limiting the number of rays impinging on the cornea, and thereby lessening the confusion of foci in the interior of the eye. When neither the diaphragm nor a lens separately succeed, the two together will sometimes prove effectual. The number 11 double concave, fixed to a diaphragm pierced with a narrow slit, will occasionally render valuable assistance, but the power of the lens and the size of the slit are quite matters of experiment. In one instance, and only one within my knowledge, did a double convex glass answer better than the concave; on its being fixed to the diaphragm the patient and optician were alike surprised at the great improvement which it caused in a very bad case.[1]

Sir John Herschell has suggested the adaptation to the eye of a lens of nearly the same refractive power as it, and having the surface, next the eye, an exact intaglio fac simile of the irregular cornea. Should, says he, "any very bad cases of irregular cornea be found, it is worthy of consideration whether at least a temporary distinct vision could not be procured, by applying in contact with the surface of the eye, some transparent animal jelly contained in a spherical capsule of glass; or whether an actual mould of the cornea might not be taken and impressed on some transparent medium. The operation would be delicate, but certainly less so than that of cutting open a living eye and taking out its contents."[2] This proceeding seems to me more simple in theory, than easy of practice.

Lenses ground to different forms have been tried with more or less success. Dr. Hull states that in a very bad case, much benefit resulted from the use of an instrument, formed of two lenses, with an adjustment; the lens nearest the eye being small and doubly concave, the other large and convex.

Could but the rays of light (as Dr. Pickford justly remarks), reach the lens, with accustomed regularity of convergence, all would be well; a deep double concave glass, by occasioning a prior divergence, would remedy the defect of vision; but could they do this, one of the very peculiarities of the disease itself would vanish and cease to exist. Besides this difficulty, there is another; namely, that though a correct shaped lens might be obtained, it would not answer unless placed at the exact distance from the eye that is required; and always retain the same relative position. Should a person be desirous of really deriving benefit fro. : lenses he might proceed thus: First, let him try a plano-

[1] Mr. Hawes, 79, Leadenhall-street, has had much experience in the manufacture of diaphragms, etc., for Conical Cornea.

[2] Article, "Light", *Encyclopædia Metropolitana*.

convex lens, the concavity being about equal to the convexity of the cornea, taking care that the curve is as nearly parallel to the curve of the cornea as possible, when placed at the most suitable distance from the eye. It is obvious that every distance has its peculiar curve—the greater the distance, the less the curvature, as it is in concentric circles. If that form should not be satisfactory, he might then try, instead of a plano-convex, a convexo-concave, and afterwards a double concave, only taking care that the two concaves partook of the form of the curve of the cornea; that is, both the inner and the outer curves should be similar in form to that of the cornea, but of less curvature; or, in other words, instead of being portions of spheres as is usual in lenses, the curves should be portions of parabolas or hyperbolas as the case may be, varying the amount according to the distance of the lens from the eye, and according to the form of the Conical Cornea.

It will be seen by this survey of the various modes of treatment, that there is not one which offers more than *prospects* of success. Patients have rarely determination sufficient to carry them through the discomforts of the emeto-purgative course; and although the operations of artificial pupil and destruction of the lens have each their advocates, the amount of success which appears on impartial examination is not sufficient to counterbalance the formidable nature of either proceeding, or to justify their employment unless as a *dernier ressort*. On the whole, I place most trust in the combination of puncturing with fluid pressure, judicious attention being at the same time paid to the general health, It has at least the recommendation of simplicity, and if unsuccessful, the patient is not left in a worse condition than before. Prior to any operative measures, all the points of the case should be fully considered, and it is proper to ascertain whether the vision be assisted by the limited aperture or by the use of belladonna. A card blackened with ink and pierced with a large pin, makes an excellent experimental diaphragm; and the most elegant preparation for dilating the pupil, is a solution of from two to four grains of the neutral sulphate of atropine in an ounce of distilled water.

19, Berkeley Square, March 1850.

NOTE. To the following gentlemen, my cordial thanks are rendered for the valuable information which has formed the groundwork of this paper. Dr. F. Jaeger, Vienna; M. Sichel, Paris; Sir John Richardson, Mr. Dalrymple; Mr. James Dixon; Mr. Ranald Martin; Sir John Fife; Mr. H. L. Smith, Southam; Dr. Butter, Plymouth; Dr. Billet, Taunton; Professor Andrew Anderson, Glasgow; Dr. Mackenzie, Glasgow; Dr. Cadenhead, Aberdeen; Dr. Keith, Aberdeen; Dr. Pickford, Brighton; Dr. J. C. Hall, East Retford; Mr. Square, Plymouth; Mr. W. Walker, Edinburgh; Mr. Gervis, Tiverton; Mr. Isbell, Stonehouse; Mr. Soden, Sunbury; Mr. Evans, Belper; Mr. Mould, Plymouth; Mr. Neill, Liverpool; Mr. Estlin, Bristol; Mr. Barnes, Exeter; Mr. Delagarde, Exeter; Mr. Cleobury, Oxford; Mr. Maling, Sunniside; Mr. Braithwaite, Leeds; Mr. Greenhow, Newcastle; Mr. Barton, Didbury; Dr. J. A. Robertson, Edinburgh; Mr. Percival, 1st Life Guards; Mr. Ryland, Birmingham; and Mr. W. R. Wilde, Dublin.

ON THE HEALTH OF LONDON, DURING THE SIX MONTHS TERMINATING MARCH 30th, 1850.

By JOHN WEBSTER, M.D., F.R.S., Consulting Physician to the St. George and St. James's Dispensary.

[*Read before the Westminster Medical Society, April* 13, 1850.]

Believing that some observations on the Health of London, during the last six months, in continuation of those which were previously brought before the Westminster Medical Society,[1] may be interesting, I have prepared this paper. During the period from the 29th September, 1849, to the 30th March, 1850, the health of the metropolis has been, on the whole, very satisfactory. The number of deaths from all causes has been below the ordinary average, and less than those which occurred during the corresponding months of the years 1848-49; the mortality for the last-named period having amounted to 30,160, and that for the corresponding six months just ended being 26,096. The latter season thus exhibits a diminution of 4,064 deaths, or about 13½ per cent. In the first three months of the current year, 2,219 fewer deaths have occurred in London, than during the same quarter of 1849. This favourable aspect of the public health has been due both to various causes to which I shall hereafter refer, but chiefly to the diminished mortality of several diseases which were very prevalent and fatal during the years 1848-49.

Diseases which have Exhibited a Diminished Rate of Mortality. Scarlatina, which carried off 2,541 individuals during the two quarters ending the 31st March 1849, proved fatal to only 685 patients in the corresponding months of the recent season; being a decrease of 1,856 deaths. Typhus has exhibited a mortality of 962 in place of 1,582; being a diminution of 620 deaths. Small-pox has likewise proved much less fatal than previously; only 194 persons having died from it in the two quarters just ended, instead of 641 during the parallel six months of 1848-49; being a decrease of 447, or more than two-thirds.

Cholera was very fatal during last summer and autumn, and did not subside till towards the close of 1849; 494 persons having died in London from it during the fourth quarter of that year; while, in the corresponding three months of 1848, the deaths, from the same cause, were only 26 fewer. But during the first quarter of the current year, the contrast has been marked, and highly satisfactory; not more than eight persons having died of cholera since the 1st of last January, instead of 516 during the first three months of 1849. The fact now stated is highly important, and may, I hope, be taken as an indication that cholera will not prove so epidemic and pestilential during next summer and autumn, as it was last year.

Influenza, which, in the six winter and spring months of 1847-48, carried off 1,739 persons, proved fatal to only 77 in the same period of 1848-49, and to 87 in 1849-50. Hence this malady, which prevailed almost like a pestilence two years ago, has since been a comparatively mild complaint.

[1] London Journal of Medicine for 1849, pp. 992 and 1063.

Diseases of the chest, including phthisis, which always prove so common and fatal during cold and inclement weather in this climate, have lately been less so, especially during the last quarter; 4,428 persons having died from diseases of the respiratory organs, instead of 4616 during the corresponding three months of 1849; being a difference of 188 deaths.

Diseases of the brain and nervous system, which are also usually prevalent and fatal, have shown a comparative diminution; 3,092 persons having died of these affections within the last six months, being 60 fewer than the number of deaths (3,152) which occurred in the corresponding period of 1848-49.

Hooping-cough has proved fatal in 715 cases; being a decrease of 652 cases upon the number (1,377) registered in the corresponding period of last year, or nearly one half.

The diseases of the puerperal state exhibit a smaller mortality than in the two corresponding quarters ending 30th March 1849. During the last-named period, 339 females are reported to have died from these causes; whereas, during the six months just terminated, the number of deaths from the same diseases has been only 242; being a decrease of 97, or of upwards of one-fourth. This fact seems worth mentioning, as the danger attending parturition sometimes becomes much augmented, in a town population; and especially in lying-in institutions, where terrible epidemics have so often prevailed.

Diseases which have exhibited an Increased Rate of Mortality. Notwithstanding the general salubrity of London, and the aggregate diminution of deaths from all causes, some of the ordinary diseases have exhibited an opposite feature.

Measles have proved more fatal in the last six months, than during the corresponding period of 1848-49; 641 persons—chiefly infants and children, having died lately from that complaint, as compared with 391, during the winter and spring of 1848-49. There has thus been an excess of 250 deaths from measles in the six months just past.

Diarrhœa and dysentery have exhibited very little difference, although there has recently been a slight increase in the number of deaths from these causes. During the last six months, 811 persons have died of these maladies, the number for last year being 775, or 36 fewer deaths than recently.

Diseases exhibiting an Uniform Rate of Mortality. Diseases of the heart and blood-vessels, during the two quarters ending 30th March 1849, were fatal in 1,002 cases; while the deaths from these causes, during the corresponding period of 1849-50, have amounted to 1010. The rate of mortality of these complaints may then be said to have been almost identical during both periods.

One case of hydrophobia has recently occurred in London. Formerly, this intractable disease was more frequent than of late years; and it appears, from the early Reports of the Registrar-General, that twelve persons died from it in the year 1838. Subsequently, up to 1847, from one to four individuals are reported to have been its victims each year. Since that period, the disease has happily proved fatal in only two instances; one in January 1848, and the second in February of the

present year, Both patients were young. The most recent case was a girl aged 4, who is stated to have been bitten by a rabid dog a hundred and one days previously, as appeared from the evidence given at the inquest, when it was stated, that the patient was bitten on the 15th of November 1849, and died on the 24th of the following February; hence the poison must have remained latent in the system much longer than is commonly supposed. This fact is interesting, and seems to show, that a patient must not be considered wholly free from the supervention of canine madness, although forty days may have elapsed since the infliction of the bite of a rabid animal.

The recollection of the former frequency of hydrophobia, which, indeed, seems to have been at one time so common, that the weekly average of deaths from this cause was stated to be much higher than at present, renders its diminution the more gratifying. This disease has always baffled the skill of medical practitioners, notwithstanding the vaunted reports occasionally put forth in some countries, that a cure had actually been discovered. It would be of much benefit, if these assertions were realized; and whether the specific come from a remote province of Russia, or the more distant wilds of Abyssinia, humanity must rejoice at such a discovery. But until we have better evidence than mere assertion, we can only trust to immediate excision of the wounded part, and the subsequent application of cupping-glasses: by these measures alone, which should be used whenever any suspicion exists, the safety of an individual bitten by a rabid dog can be guaranteed.

The present rarity of hydrophobia is mainly to be attributed to the operation of the Act of Parliament, brought in by Mr. Fox Maule; whereby dogs are not now allowed to draw any vehicle in London. One of the reasons assigned for passing the above-mentioned judicious measure was, that the canine race, when employed in drawing vehicles, particularly in hot dry weather, often get so excited as to become rabid, and then to communicate the disease, not only to other dogs and animals, but also to man. Since the prohibition became law, hydrophobia has almost disappeared from London, or, at least, is a very rare disease; and this happy result is, I think, so much owing to Mr. Maule's exertions, that it would be desirable to make the measure general throughout the whole empire—for the malady prevails elsewhere more frequently than in the metropolis, to which alone, the Act now referred to applies.

Hydrophobia is still a prevalent disease in many parts of Europe, especially throughout the northern provinces of the continent. For instance, in Prussia, this dreadful malady annually causes the death of 70 or 75 persons: as is shown by the fact, that during fifteen years ending 1834, according to the Government Mortality Tables, 527 males and 546 females, making a total of 1,073 individuals, fell victims to hydrophobia. Having resided some time in Berlin, and made inquiry on the subject, I can testify to the prevalence of this affection in the Prussian states. It is also worthy of remark, that the medical practitioners, resident in those districts, ascribe the frequency of canine rabies to the number of famished and sometimes rabid wolves, which come from the forests and deserts of Poland during severe weather, in search of food; when they bite domestic dogs, and thus give rise to the propagation of hydrophobia among the inhabitants.

Mortality among Children. It appears that, of the 13,219 deaths from all causes, registered during the first quarter of the current year, 5,484, or about 41½ per cent., occurred in persons under fifteen years of age. Having already alluded to several of the diseases which usually prove fatal, especially to children, as scarlatina, measles, and pertussis, it would be superfluous to notice them again. Hydrocephalus and convulsions, however, demand some attention. Convulsions are reported to have been the cause of death in 482 persons during the past quarter, only three of whom had reached the age of fifteen. From hydrocephalus, 370 individuals, of whom only three had attained the age of puberty, have died during the quarter just ended. These facts are interesting and instructive, as they unequivocally demonstrate that these two diseases are almost exclusively confined to infancy and childhood. The danger attending them seems to bear a direct ratio to the youth of the patient; and the prognosis will be most unfavourable in infants, or in those of tender years and feeble constitutions. The large number of children who annually lose their lives from accidents is deserving of notice. Not fewer than 79 young persons under fifteen years of age have died from burns and scalds during the last three months.

Privation of breast-milk proved fatal to forty infants. This circumstance is most significant; and when it is also known, that during the years 1848 and 1849, no fewer than 347 infants died from a similar privation, the statement now made deserves serious consideration. This large mortality is, without doubt, chiefly owing to the practice, so prevalent among many of the middle and upper classes, of employing wet-nurses to suckle their infants, instead of following the dictates of nature, which enjoins each mother to feed and nourish her own offspring. Further, as the milk of a recently delivered woman is more serous than afterwards, it is more fit for her new-born infant, than that of another female who has been nursing for a longer period. Moreover, the human milk progressively becomes more nutritious, and is better adapted to support and strengthen the growing infant. It should also be remembered, that the child of the person employed to act as wet-nurse, being frequently fed by hand, and very generally neglected, if not starved, often falls a sacrifice. All circumstances being considered, it may be emphatically said, that, excepting in cases where the mother is unable to afford sufficient or proper nourishment to her own offspring, the custom of employing wet-nurses should be discountenanced, not only on physical, but on moral grounds.[1] It is no answer to assert that parents, especially

[1] The practice of employing wet-nurses is not only contrary to the laws of nature, and of an injurious tendency both to mother and child, but also holds out a premium to immorality. Hired nurses are liberally paid for their services, always well fed, and often luxuriously pampered in a manner quite at variance with their previous position: hence, especially if unmarried, they are tempted to again become qualified for obtaining a similar situation. That this is not an overdrawn picture, may be proved from the experience of medical practitioners. It is also astonishing to observe the encouragement which this demoralizing custom receives from persons who are frequently most charitable, and otherwise desirous of improving the condition, both moral and religious, of the lower orders. If the subject were carefully considered in all its bearings, much beneficial alteration would be accomplished. Antiquity might, perhaps, be cited in favour of wet-nursing; but it should be remembered that the custom was, even then, strongly condemned. Thus, Tacitus complains of the degeneracy of the Roman matrons, who too frequently entrusted

in the fashionable world, are unable to suckle their infants, and frequent society at the same time. Most assuredly these are incompatible: but this only strengthens the argument against wet-nursing, as mothers employed in suckling their own children, could not frequent hot rooms, mix in crowded assemblies, keep late hours, or join in any species of dissipation. They would have to remain more at home, to take care of their own health and of that of their infants; which would greatly conduce to the benefit of all parties.

The great mortality among children, from all diseases, demands most serious attention. If the chief causes can be pointed out, which produce such a disastrous influence, a great step will then be made towards their mitigation. Unquestionably, improper feeding, defective clothing, and exposure to the vicissitudes of weather, in this variable, though otherwise healthy climate, materially contribute to the production of disease, and to the consequent augmentation of mortality, amongst infants and children, even in the wealthy classes, or those in comfortable circumstances; but still more so among the poor and dissolute. Hygienic measures, and judicious medical treatment, greatly diminish the mortality among all classes, but especially in infants and children; whilst greater attention to the clothing and diet of children would certainly give a more favourable aspect to the mortuary tables of London.

Mortality among the Pauper Population. A few general remarks may now be made upon the large mortality among the inmates of hospitals, workhouses, and prisons, nearly one-fifth of the whole deaths having taken place in these establishments. Thus, of the whole 13,219 deaths during January, February, and March of the present year, 2,353, or $17\frac{3}{4}$ per cent. were individuals supported, or at least medically treated by the public, or by unpaid medical officers. The number now mentioned does not comprise the deaths among dispensary patients, out-door parish paupers, or the numerous persons frequently attended gratuitously by medical practitioners. At least one-third of the deaths recorded were of this description.

Influences which have contributed to the Improvement of the Public Health. The chief features characterizing the sanitary condition of London during the last six months, show that the public health has been, on the whole, satisfactory, as compared with the corresponding period of 1848-49; and more especially so, if contrasted with the six summer and autumn months immediately preceding, viz., from the 1st of April to the 30th September 1849. During the later period, the mortality was enormously augmented by the great prevalence of cholera and diarrhœa, 40,117 persons having died from all causes during this period, and only 26,096 in the more recent period. But the difference appears

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the care of their infants to Grecian girls, or other inferior domestics. Pliny notices the advantages attendant on the nursing of children by their own parents; and other authorities, both ancient and modern, might be quoted. Van Swieten also informs us, that one of the queens of France, who suckled her own infant, having ascertained that a lady of the court had surreptitiously given the royal child her breast, was so much offended on hearing of the fact, as to excite vomiting by introducing her finger into the infant's mouth, being unwilling that her son should receive any nourishment but from herself.

even more extraordinary, when the three months of July, August, and September of last year, are compared with October, November, and December. In the former period, the total deaths from all diseases were 27,109, but in the latter they decreased to 12,877, being a diminution of more than half, or 54 per cent. Cholera and diarrhœa continued to prevail throughout October and November of last year, though in a rapidly decreasing ratio, so that 976 individuals died of these diseases during the entire quarter; nevertheless, this period, and the first three months of the current year, have proved, as formerly stated, more healthy than the corresponding period for several previous years.

The chief influences which have contributed to produce this favourable result are—1. The improved physical condition of the population: 2. The abundance of good and cheap provisions: 3. The less variable, and hence more salubrious, condition of the atmosphere: 4. The increased attention recently given to sanitary measures: 5. The greater care paid by individuals to their own health, in consequence of the alarm experienced during the previous pestilence: and, 6. The removal, by the recent epidemic, of a large number of the debilitated, dissipated, and diseased portion of the population, so that there remained less *pabulum morbi* as compared with former years; while the survivors were also better able to resist the inroads of disease.

Most of the circumstances above alluded to, as influencing public health, are so obvious, as to require little or no comment. Although much has been recently said respecting sanitary measures, and a few judicious improvements have been commenced, very little advance in the right direction has as yet been made. As I have previously adverted to this subject, and shewn its importance, it is unnecessary for me to repeat my arguments; but I would now again assert as strenuously as formerly, that all nuisances, whether public or private, must be abated. Vested rights, and individual interests, must yield to the health of communities. On this point, *salus reipublicæ est suprema lex;* and, as on such question there can be no mistake, there ought assuredly to be no compromise.

The removal of food for disease by the cholera epidemic of last year, and its consequent influence in producing a diminished rate of mortality, is analogous to what has been formerly experienced. Similar results followed the disappearance of influenza, which prevailed so severely during the winter of 1847-48. In the quarter ending June 30, 1848, the number of deaths was 3,510 fewer than in the preceding three months. Again, after the cessation of scarlatina, which was unusually prevalent and fatal during the winter of 1848-49, the aggregate mortality decreased; the deaths from all causes registered in the quarter ending June 30, 1849, being 2,422 fewer than those in the three months ending 31st March. Hence, it may be generally predicted, with some confidence, that whenever any epidemic malady prevails, and removes numbers of the population, the subsequent season or year will probably be more healthy, and fewer deaths will occur than under other circumstances. This arises much from the removal by the previous epidemic of the subjects most liable to disease; but there may be also other evident causes in operation, although it is often impossible to point out, and

still less to define precisely, the association of every influence, however consistent the results may seem with general experience.

Excess of Births over Deaths. The remarkable excess of Births over Deaths, which has taken place in London during the last two quarters, is worthy of notice; particularly as history informs us, that increased fecundity is the ordinary sequence of a pestilence. In the first three months of the above period, 4819 more persons were born than died in London; and during the second quarter, the excess was 5,428, thus making a total of 10,237 more births than deaths in six months. And if to that number we add the 4,067 fewer deaths registered during that period, as compared with the corresponding six months of 1848-49, the vacuum made by the cholera will be found already fully filled up; the excess of deaths during July, August, and September 1849, as compared with the same months of 1848, amounting to 13,606, having been replaced by 14,304 persons—10,237 more births and 4,067 fewer deaths. In fact, excluding immigrants from the provinces, who may be set off against emigrants to the colonies or elsewhere, there are 698 more human beings now resident in London than after the devastating disease of last autumn. This fact is highly consolatory, and tends to shew the compensating power of the laws of nature, at the same time that it indicates the power and care of our beneficent Creator.

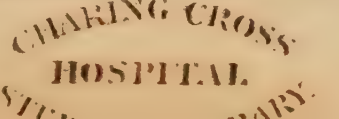
Atmospheric Influence. In describing the peculiar weather prevalent during the most unhealthy period of last summer, I especially directed attention to the oppressive and ungenial feeling produced by the London atmosphere; which was then hazy, and, at times, appeared like a thick mist, the air being, at the same time, generally very dry. Scarcely any wind prevailed; and when it did, it was often south-west or southerly, with diverging currents. But the most remarkable phenomenon observed at that season, in reference to the atmosphere, was the frequent and daily very extensive fluctuations exhibited by the thermometer; the lowest temperature of the month of August, when so many deaths occurred by cholera, being 42, the highest 82; thus making a difference of 40 degrees. In some nights, there was even so great an alteration as 30 degrees between the warmth of the night and day time. These interesting and instructive facts are again mentioned, in order to illustrate the influence which the weather and peculiar state of the atmosphere then exerted upon public health, during the prevalence of cholera and diarrhœa; and, as many of the atmospheric phenomena have been of quite a different character, throughout the three months ending the 30th of March in the present year, when London has otherwise proved healthy, it becomes more important to notice the principal features exhibited recently, as they evidently influenced the improved sanitary state of the metropolis. During the last three months, when 2,219 fewer deaths have been registered than in the corresponding quarter of the previous year, the temperature, although low, has neither been very cold, nor subject to great fluctuations. The range of the thermometer has proved unusually small, especially throughout the first half of the quarter, never having exceeded 20 degrees in one day; and very frequently, the difference between the temperature of the day and night time was much less, being often only four or five degrees,

sometimes from seven to nine, or up to thirteen degrees. Towards the end of the quarter, but especially during the latter part of March, the variation of temperature, between the day and night time, became much greater than previously: the extent being then frequently twenty-two degrees, occasionally twenty-three; and on one night, the variation reached twenty-four degrees, which proved the most extensive range of the thermometer remarked in one day, during the whole quarter.

Throughout the entire three months, the lowest point observed was 22°, on the 8th January, the mean temperature of the week being then 30·3°; whilst the highest elevation registered was 58°, on the 2nd of February, when the average heat of the week was 41·8 degrees. Again, during the whole quarter, although cold, the weather was not inclement, the sky being generally cloudy or overcast. The wind, in the early part was often south-west or southerly. Electricity was positive; there was moderate rain and snow occasionally. About the middle of the quarter much rain fell, and in the sixth week the wind was always south-west, at first very stormy, the sky overcast, and electricity absent. This was also the case during the seventh week, the weather being then very rainy and cloudy, whilst the wind was still south-west.

The range of the barometer should be likewise noticed, in conjunction with other phenomena, as its elevation or depression always exerts considerable influence upon public health, even in salubrious seasons. During last winter, the atmospheric pressure generally ranged high, especially in the first three months of the current year, although it was less elevated in January than subsequently. In the four weeks of this month, ending the 26th, 4,388 deaths took place in London, the barometer being then always under 30 inches. On the other hand, during the four weeks ending the 16th of last March, when the range of the barometer generally varied from 30 1-10 inches to 30 4-10 inches, the metropolis became particularly healthy, only 3,649 deaths having then occurred; thus making a diminution of 739, or nearly one-sixth. The influence which atmospheric pressure exerts upon the health of individuals, seemed still more apparent when the weather became calm, and the barometer ranged under 30 inches. This was noticed during the last two weeks of March, when the mortality again increased, the deaths being then 2,193, or exactly at the same rate registered in the month of January. During the fortnight now mentioned, the atmosphere was generally cloudless, although sometimes it became overcast; the wind was generally north or east; and in six of the above fourteen days, the weather continued calm; the electricity seemed slight; very little rain fell; but in the last week, on three different days, there was some snow and sleet, afterwards followed by showers.

These particulars tend to explain the salubrity of the recent season, especially towards the middle of the quarter, when the atmospheric phenomena were different from those noticed at the early or latter parts. During the first-named period, the thermometer exhibited very moderate variations of temperature between the night and day time. But the investigation becomes even more instructive, when collateral circumstances are also considered. Thus, according as the weather got more dry or calm, and the wind assumed a southerly direction, whilst the electricity was slight, and the barometer low, the number of deaths



augmented, and sickness became more prevalent than previously. As an additional illustration, it may be mentioned, that during the four weeks ending the 30th of last March, (at which period the weather was generally cloudless, or more clear than ordinary, also calm, dry, and at the same time exhibited considerably greater variation between the heat of the day and night time, than throughout the four weeks immediately preceding), the total deaths in London amounted to 4,035; whereas, during the period, also comprising four weeks, terminating on the 2nd of March, the number of fatal cases from all causes did not exceed 3,702, making a diminution of 333 deaths, or 9 per cent. in favour of the month of February as compared with the subsequent March. During the former month, the weather was of a different description; whilst, throughout the night and day time, the thermometer indicated a much smaller variation of temperature.

The peculiar features of the recent season, and the marked increase of mortality consentaneous with some of the changes in the atmospheric phenomena, are important, as they account, in my estimation, very much for the great alteration noticed in the amount of deaths recorded at the different periods above quoted. Indeed, according to the views I entertain respecting the influence of such agents, but which I have only adopted after careful observation during several years, and more especially of late, I think that we may correctly conclude that, whenever the variation between the day and night temperature is unusually great, with cloudless, or even hazy weather, or if a calm, or only slight southerly winds prevail; and further, should the amount of electricity be small, and the quantity of moisture so inconsiderable as to make the air particularly dry, with a low barometric pressure,—then sickness will most probably abound, and more deaths be registered in consequence, than when the opposite atmospheric phenomena prevail.

The influence of atmospheric phenomena on health and disease is, doubtless, a very difficult subject to investigate, and one on which it may seem premature to give a decided opinion in the present state of our knowledge. Yet, I consider that the conclusions now enunciated are borne out by the facts brought forward. Further investigation is desirable; and I feel convinced, that if practitioners will carefully note the changes in the atmospheric phenomena during various consecutive seasons, conjointly with any decrease or augmentation of disease, and with the concurrent rate of mortality, a series of accumulated observations will thus be made, from which useful practical deductions may be derived.[1]

[1] Even in the earliest ages, eminent writers discussed the questions now mooted; and amongst such authorities, Hippocrates and Aristotle may be cited as having paid considerable attention to the subject. The latter philosopher, although not a member of the medical profession, in his Problems, particularly the section headed *Iatrika*, examines, besides meteoric phenomena, the effects produced by rains, droughts, cold, heat, wind, vapours, and many other influences, such as food, drink, or locality, which may produce or modify disease. In addition, I would mention the works of Galen, Aretæus, and others, as containing information on these subjects. The examples of Hippocrates and Aristotle among the ancients, and especially that of Sydenham among more modern observers, are worthy of imitation by every practitioner. If this were done, much valuable knowledge might be obtained, which could not prove otherwise than highly useful in the study of the origin, nature, and treatment of epidemics, as well as of many ordinary diseases.

The influence which particular states of the atmosphere exert upon the action of remedies employed in the treatment of disease, is also an important subject for consideration. Mercury produces a much more powerful and rapid effect upon the human frame, and hence proves more efficacious in the treatment of diseases, in mild weather, if the air be moist, the wind south-west, the barometer low, and the temperature equable, than in dry frosty weather, with a north wind and a rising barometer. Purgatives, likewise, act more effectually in the former condition of the atmosphere. But tonic remedies seem to have their action promoted by atmospheric influences of a quite contrary nature. If prescribed in dry, cold, or frosty weather, with a high barometer, and northerly wind, they become more efficacious than under an opposite condition of the atmosphere. Bleeding, again, depends much on the state of the weather for its beneficial influence in inflammatory complaints; whilst depletion may be employed to a greater extent at one time than at another. As a general rule, it may be affirmed, that patients bear bleeding better in cold dry weather, with a northerly wind, and high barometric pressure, than under other circumstances; and in all inflammatory diseases, requiring venesection, it will prove more beneficial in these conditions, than when the weather is moist, the wind southerly, the barometric pressure low, the temperature elevated, and the atmosphere clear. I might extend these remarks to other classes of remedial agents; but enough has now been said to shew the influence which the state of the weather and atmosphere exert in modifying the action of remedies upon the human constitution.

Climate. The state of the barometer, hygrometer, and thermometer, should be always examined, especially in connexion with any prevailing epidemic, as well as the direction of winds, the electrical condition of the atmosphere, and the aspect of the air, whether clear, overcast, or cloudy. Much important information may be thus obtained, which will prove of the greatest value both to the philosopher and the practical physician. Indeed, I would assert, that the utility of such inquiries can hardly be rated too highly.

The effects of climate in modifying the type, and determining the mortality of diseases, admits of many illustrations, from the changes which take place in the same country in different seasons, and from the special characters which it presents in certain regions of the globe. The relation, also, which temperature and meteorological conditions of the atmosphere bear to the suitableness of various medicines and articles of diet, is an interesting study, teeming with practical lessons in connection with the great subject of public hygienics. For example, in the north of Europe, mercury is more safely given in large quantities than in the south; alcoholic stimulants are less baneful in Russia than in Italy; whilst animal food is more essential in Lapland than in Spain.

The effects of certain *Winds* upon health are well known. In Great Britain, the dread of the *East-wind* is as universal as it is just: in the smiling regions of Provence, and the south of France, the *Mistral* is as great and as dreaded a foe to health and life: and in Italy, so much over-lauded for its climate, a continuance of the *Sirocco* seems to annihilate the energies both of body and mind.

Madrid, perhaps, furnishes more striking illustrations of the effects

of winds and temperature than any other place in the whole world. There, the *Solano*, or south-east wind, produces most powerful and sudden changes in the health of the Madriléños; and the icy northern blasts from the Guadarrama mountains, give rise to acute inflammatory affections of the lungs, which rapidly cut down thousands of the people. In the winter of 1829-30, the deaths from *pulmonia*[1] are stated to have been about thirty thousand. Dr. Cormack, of Putney, has kindly shown me his MS. diary, written in the Spanish capital during the winter of 1839-40, in which he notices the hospitals being suddenly crowded with cases of pneumonia, as a result of the piercing north winds, which were then, for weeks, continually whistling through the streets and common-stairs. The same gentleman also informs me, that palsies and apoplexies, notoriously so common in Madrid, occur with greatest frequency when the wind blows from the snow-clad Guadarrama mountains. From the want of trees and other topographical peculiarities, the air of Madrid is generally dry and searching, which has given birth to the well-known Castilian proverb—

> "El aire de Madrid es tan sotil,
> Que mata á un hombre, y no apaga á un candil."[2]

This piercing air, while it is most lethal to the acclimated, is still more deadly to strangers, who are slow to learn that in Madrid, in all seasons, it is needful to be provided with the ample cloak, as a shield from the arrows of death. I cannnot help thinking that, in our country, all classes are strangely reckless in their winter clothing.[3]

The great alternations of temperature which prevail in Madrid, and also in large districts of Spain, explain the common custom of the Spaniards, wrapping themselves in cloaks, even in the middle of summer,—*embozandose en las capas*, to use the popular phrase; and this custom is fully justified by the truthful couplet already quoted.

From various causes, but particularly from those alluded to, Madrid is the most unhealthy capital in Europe, the population being sustained by constantly absorbing the inhabitants of the provinces. The average mortality is at least one death in every twenty-eight inhabitants; whereas

[1] The term usually applied to the pulmonary inflammations, which, like an epidemic pestilence, so often desolate this city, having about 200,000 inhabitants.

[2] Thus translated:— The air of Madrid is so subtle, that though it will not put out a candle, yet it will extinguish a man's life.

[3] The following interesting passage I have much satisfaction in quoting from Dr. Cormack's diary, as it bears out the above remarks. "*20th January*, 1840. The miserable look and melancholy cry of the Aguadors (without partaking of their bevcrage), has made me shiver all day. What can the loungers at the Puerta del Sol mean in such weather, by drinking tumblers of cold water? The air is most cutting. It reminds me of the '*east haars*' of Edinburgh; for, like them, it makes me feel as if being dried and flayed, outside and inside. In the streets of Madrid, the people wisely avoid breathing, except through the folds of a handkerchief or veil, or both. The chest, too, is well protected, particularly by the men, whose ample cloaks are doubled across their breasts and brought up over the throat to the mouth. The women, I observe, have generally the head ill-covered; but they never expose the throat and chest, like the ladies of England, so scornful of health in their devotion to an unseemly fashion. The scanty covering of the heads of the Madriléñas is certainly surprising. In ordinary weather, they go out with merely a fold of the slight veil (*mantilla*) embracing their hair. A few, but I am told an increasing number, have the mantilla so constructed, as to afford a warm cover or hood to the head. At night, and in very cold weather, it is common to tie a handkerchief round the head, under the mantilla."

in London, it is only one in every forty-two persons, or, in other words, actually less by one-third. The difference between the temperature of the day and night, and even between different sides of the same street, are causes of mortality, which well illustrate some points in our own vital statistics, and which are applicable to the explanation of many sudden variations in the rate of mortality and prevalence of disease. In Madrid, the Manzanares is often covered with ice at night, which disappears during the day; and in summer, when the Solano blows, the city is a furnace, the thermometer being often above 90° F., whereas in winter, it frequently falls below 32° F. During the forenoon of the same day, there sometimes prevails so much as twenty degrees of difference in temperature between the two sides of one street!

Speaking generally, in reference to the salubrity of different climates, very erroneous notions are frequently entertained on the subject, particularly by non-medical observers. Opinions are too often formed from the sensations made upon the individual's own physical frame, not from well-founded and enlarged experience. An agreeable climate is not always the most salubrious, although the animal feelings are certainly often thereby more gratified than in countries where the atmospheric impressions seem of a different description; whilst good health and longevity are more frequent in the latter than in the former. Take the south of France or even Italy, so much esteemed as salutary retreats for invalids. Having visited both these regions, and made inquiry among the inhabitants, into their greatly over-lauded climates, I soon satisfied myself that the views commonly entertained, were founded on exaggerated reports. The conclusion I came to was adopted after much personal communication with the medical practitioners of many parts of Italy, and after attendance in various Italian hospitals and visits to the cemeteries, where foreigners, but English chiefly, were laid in their lonely graves. It is indeed sad to think how many of our countrymen, who cross the Alps in search of health, in place of it find only a tomb in the reputed Elysium of Italy. The climate, especially of the southern districts, is no doubt delightful; and visitors, if in health, enjoy its balmy breezes, splendid sky, and exhilarating atmosphere; at the same time that surrounding nature seems, in many places, like an earthly paradise. Nevertheless, diseases are here quite as serious as elsewhere, are generally more rapid in their course, and often equally uncontrollable by treatment; whilst the average limit of human life is, by no means, prolonged to the same term of years, which we so frequently meet with in the more northern and bleaker countries of Europe. Animal life seems far more rapid in the Italian peninsula, and the physical frame becomes quicker developed; but it decays sooner than in England, where longevity is much oftener observed amongst the inhabitants than in the former country.

Type of Disease. The common type, or diathesis, of most diseases during the last six months, has proved, as has been commonly observed for several years, asthenic; and accompanied in many cases with great debility and exhaustion. So much has this been marked, that the patients have often required support and tonic treatment, although the symptoms have appeared to partake of such an inflammatory character, as to warrant antiphlogistic measures. This feature, though mani-

fested in a very large proportion of the cases met with during the recent season, has been less observed than in the period immediately preceding, when almost every form of malady assumed, if not in its early stage, at least soon afterwards, a decided asthenic character. This result was especially noticed when influenza proved so prevalent and fatal, more than two years ago. Again, a similar peculiarity was perceived in the malignant epidemic of scarlatina, which occurred in the winter of 1848-49. Lastly, the same feature was exhibited, but in a still more remarkable degree, in the cholera, diarrhœa, and dysentery, which prevailed during the months of July, August, and September of last year, and carried off 15,512 persons. Thus was produced a much larger comparative amount of mortality than had ever been previously recorded in London, since the great plague, upwards of 184 years ago; at which time, as in last autumn, infinitely more deaths were reported, than, it is fervently hoped, will be ever again witnessed in this mighty metropolis of England, now teeming with its 2,300,000 inhabitants,—the emporium of intellect, the centre of civilization, and forming the largest mart for commerce which exists, or ever has existed, in the universe.

24, Brook Street, Grosvenor Square,
April 1850.

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The Present Ill State of the Practice of Physick in this Nation truly Represented. By a Member of the College of Physicians. London: 1702.

At a very recent period,[1] we took occasion, in reviewing the Hunterian Oration by Mr. Skey, and the Regulations of the Society of Apothecaries for 1850, to draw the attention of our readers to the state of the medical profession in the present day, and to state, in pretty strong terms, that the science and practice of medicine had advanced most materially of late years, and that the utility of our profession to the public was daily increasing.

In the present article, we propose to consider the same subject in another light, by comparing the state of medical practice as it now exists, with that which prevailed at the end of the seventeenth century. We shall also take occasion to touch upon some matters which were, from want of space, only casually considered in our former review.

We may preface our remarks by observing, that the epoch in which the publications, whose titles are prefixed, were written, was, according to Mr. Skey, the golden age of medicine: "When," says that eminent authority, "the physician monopolized the entire rank and name of the practitioner in medicine; when the surgeon was a mere operative, identified with a menial trade; and the apothecary was a drug-vender, having, like the surgeon, no claims to medical knowledge, *quoad* the treatment of disease", and when, indeed, according to Dryden, 'he was wholly blind.'"

At the close of the seventeenth century, the physician was, indeed, the only lawful attendant upon the sick, and was the only person practising the medical profession who received a liberal education: the Surgeons were incorporated with the Barbers; and the Apothecaries, who had lately been dissociated from the Grocers by an Act of James I, were formed into a separate corporate body. It may be remarked, by way of illustration of the social position of the surgeons, or chirurgeons of that period, that their duties consisted, in addition to their tonsorial functions, in "letting of blood, applying leeches, plasters, cupping-glasses, syringing, and salivation," etc. (Pamphlet

[1] London Journal of Medicine, May 1850, p. 479.

by Dr. Merrett, page 40); in fact, in performing the "ordinary exigencies" of medical practice, for which the members of the Royal College of Surgeons of England of the present day, were declared to be alone competent, in a manifesto published by the College in 1845. We do not, of course, allude to the *Fellows* of that College, who, from the extent of their classical, mathematical, and philosophical acquirements (which, however, are yet to be tested), in addition to their purely anatomical, pathological, physiological, and surgical attainments, are the only surgeons of the present day.

In the year 1850, the aspect of affairs has, in many respects, been remarkably altered. The Physician still retains, as he undoubtedly ought to do, the respect and esteem of society, founded—not upon the *prestige* of this or that university, or upon the favour of this or that *côterie*—but upon a high moral character, and a solid knowledge obtained in the wards of hospitals, in the laboratory, and in the dissecting-room. With regard to the Surgeon of the present day, we find some difficulty in defining his true status; for the greater part of the practice, both of Fellows and Members of the Royal College of Surgeons, is not surgical, but purely medical; and though, perhaps, the *Fellows* represent the concentrated essence of the surgery of the nineteenth century, a large number of the *Members* occupy pretty much the same position as they did at the end of the seventeenth, except that they are not now associated with the barbers. The apothecary, while he unluckily retains the name, has wholly changed his character, and instead of being the uneducated retailer of drugs, has become the legitimate and recognised medical attendant upon all ranks of society, but especially upon the middle classes and the poor. But the elevation of the apothecary to the rank of a professional man, has excited the jealousy, and kindled the opposition of a class with which he was himself once inseparably associated, namely, the druggists, or, as they usually, but improperly, style themselves, the chemists.

There is a parallel between the relative positions of the apothecary and the druggist of 1850, and of the physician and the apothecary of 1770. The complaints made in the present day by the apothecaries against the druggists, are the exact counterparts of those made by the physicians against the apothecaries in the seventeenth century; with this important difference, however, that the apothecary of the present day is far better acquainted with the practice of medicine than the physician was two centuries ago. Dr. Merrett, one of the learned authorities whose work now lies before us, thus exposes the frauds and abuses of apothecaries in the year 1669:—"They use," says the doctor, "medicines quite contrary to the prescription; mushrooms rubbed over with chalk for agaric, privet and dog-berries for spina cervina, sheeps' lungs for fox lungs, the bone of an ox's heart (?) for that of a stag's heart, damsons for Damasc prunes, syrup of lemons for that of citrons, bryony roots for Mechoacan, (?) etc." The indignant language in which these frauds are denounced, proves the value attached to the therapeutical virtues of such choice articles of the *materia medica* in that day.

It appears, however, upon indisputable evidence, that the state of the medical profession at the period to which we are now referring, was extremely unsatisfactory, as indeed may be gathered from perusing some of the titles of the works enumerated at the head of this article, and which, it will be perceived, are couched in the language of complaint. The physician did, indeed, "monopolize the entire rank and name of the practitioners of medicine," and those who could not pay him his fees, were handed over to the tender mercies of the barber-surgeon or the "wholly blind" apothecary. From the very necessity of the case, therefore, the two latter were compelled to undertake the management of many of the sick,—with what success need not be recorded. Hence arose a warm contest between the physicians and the apothecaries, the former accusing the latter of usurping their province, and the latter continuing the usurpation, until the dispute was finally set at rest by the decision of the House of Lords, in 1703, in the case of William Rose,

an apothecary, in which case it was decided, that the duty of the apothecary consisted not only in compounding and dispensing, but also in directing and ordering the remedies employed in the treatment of disease.[1]

Such is a brief sketch of the relative positions of the different branches of the medical profession at two somewhat distant periods of its history; and the contrast is introduced to shew that, *mutato nomine*, there was, two hundred years ago, the same conflict between knowledge and ignorance, between collegiate rights and popular necessity, between presumed privilege on the one hand, and the presumed want of it on the other, as exists in our own day. The subject might be illustrated in an interesting manner at much greater length, but the limits assigned to this review oblige us to pass on to other topics.

We therefore proceed to consider, in more detail than we were able to do in our last number, the abstract principle of APPRENTICESHIP, and the system of what is called GENERAL PRACTICE. In doing so, we shall derive no small advantage in our inquiries, from the perusal of the quaint publications now before us, written, be it remembered, during what was, in Mr. Skey's opinion, the Augustan Age of the Medical Profession in England.

We would heartily rejoice, were a better system of apprenticeship than the present devised; yet we must confess, that it has numerous advantages, and that many of the objections raised against it, are founded upon exaggeration, misconception, or absolute misstatement through ignorance. For ourselves, we have no strong feeling in the matter. It appears, that a clause requiring an apprenticeship found its way into the Apothecaries' Act of 1815; and it is therefore necessary to ask, whether the operation of this clause, as interpreted by the competent authorities, and acted upon, is as mischievous as Mr. Skey and others have maintained.

In examining some of the objections *seriatim*, we would first remark that it is possible that an exception may be taken to the name; but the name, after all, is a very harmless one. It is derived, as the Dictionaries tell us, from the French word *apprendre*, to learn, and it signifies *a person who is engaged in learning*. That it does not necessarily involve the learning of *a trade*, it requires little argument to prove; for the articled pupils of the surgeons of the London hospitals were (and are, for anything we know to the contrary), called the *apprentices of the hospital*, and barristers were formerly designated *apprentices of the law*.

In our former article we proved, by reference to facts which are known to

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[1] The apothecaries, by this decision of the House of Lords, were restored to what appears to have been their ancient and legal rights; for Henry VIII, *after* the grant of the Charter to the College of Physicians, appointed John de Soda to be apothecary to the Princess Mary, who was delicate and unhealthy, at a salary of 40 marks a year, "*pro meliore curâ et consideratione sanitatis suæ*"; and John de Soda continued apothecary to Mary when she became Queen. The cursory perusal of certain works, published in the fifteenth and sixteenth centuries, might lead to a very imperfect notion of the duties of the apothecary. In illustration of this, we select the following quotation from C. Bullein's work, entitled "Bulwarke of Defēce against all Sicknes, Sornes, and Woundes, that dooe daily assaulte Mankinde." (London: 4to, 1562.)

"That he neither increase nor diminishe the phisiciās bille; and kepe it for his owne discharge.

"That he neither buie nor sell rotten drugges.

"That he peruse often his wares, that thei corrupt not.

"That he put not in *quid pro quo* without advysement.

"That he maie open well a veine, for to helpe the pleurisy.

"*That he medle onely in his vocacion.*

"That he delite to rede Nicolaus Myrepsi, Valerius Cordus, Johannes Placaton y^e^ Lubik, etc.

"*That he doe remember his office is onely to be the phisiciās coke.*

"That he use the true measure and waight." *Apoticaries rules, by W. Bullein.*

the whole profession, that such statements as the lot of the apprentice being "that of an ordinary servant", that he passed "four or more long years of personal servitude", that he was "the purchaser of his own degradation", etc., were mere figures of speech. In fact, the five years of the so-called apprenticeship include, or at least may include, the whole of the student's career as a pupil; the law evidently contemplates such an arrangement: and those who administer the law appear to have facilitated it by every means in their power. But it is possible, that the opposition is made to the *surveillance* necessarily exercised over the young student of medicine, by one who is older, and, consequently, more experienced than himself. If such be the objection, it surely is an unreasonable one; for, in every employment of life, the junior members must obtain their knowledge from their seniors, and submit to their control. In the army and navy, this is universally known to be the case; in the law again, the future attorney is articled for five years to one of his own grade in the profession; in the church, the student must not only conform for a series of years to collegiate discipline, but must afterwards serve for a definite period as deacon (from the Greek word *διάκονος*, a servant) before he can be admitted as a priest. It is not therefore very strange, that the future practitioner of medicine should serve a pupilage with an older person, who practises the same branch of the profession which he himself intends to adopt. We leave out of the question the education of physicians; we do not consider an apprenticeship quite so necessary for them, although we believe that it would tend to fit them more speedily for practice.

A thorough college education, followed by a prolonged course of medical study, is necessary for those who aspire to the higher walks of the profession; but such a prolonged and expensive course of study is quite incompatible with the pecuniary means of the mass of students, who enter the profession as a means of soon gaining their livelihood, and who dare not, like metropolitan physicians, spend one fortune in the hope of making a larger, at the end of a weary period of probation. For such honest and humble men, domestic pupilage seems the best resource; but for all practitioners it offers a good school for training.

We conceive, therefore, that we have satisfactorily proved, that the system of apprenticeship, when dispassionately considered, is not very objectionable; and that a very few immaterial alterations would entirely remove every ground of complaint. If the term *apprenticeship* be distasteful, it might be altered to *pupilage;* but that some such training, either in a private house with a practitioner, or in a well-arranged medical collegiate establishment, should be made compulsory upon every student destined for family practice, is, in our opinion, absolutely essential to the well-being of the profession, and to the safety of the public. If it be argued, that under such a *régime*, many turn out idle and unprofitable pupils, it may be replied, that it is impossible, under any system, to alter the condition of human nature, and to make all teachers conscientious, and all young men studious; but it is far more probable, that a beneficial effect will be produced under the wholesome restraint of domestic or collegiate discipline, than by liberating the young student from all control, and allowing him to pursue his studies or his amusements in the manner most pleasing to himself. But the latter alternative seems so absurd, that we shall not waste any further words upon the subject, and will conclude our remarks upon apprenticeship by quoting the following passage from the pamphlet first on our list, which was published in 1665 —one hundred and eighty-five years ago. "Nor let any man think to disgrace this method as mechanical, by *the imputation of taking apprentices*, since the word apprentice is entertained by the honourable profession of the law, whose younger students have been called apprentices to the law; but, however this be, it were very fond, for so poor an occasion, to neglect a thing *that is founded upon the evidence of true reason itself.* Nor indeed should they be received in the capacity of servants, or under that name, but rather

of young students, friends, or virtuous companions to be instructed in this worthy profession; the drudgery of all things resting wholly upon some ordinary servant, kept by every one for the uses of his family; and I make no doubt but there are very many ingenious young men in England, who would be very glad, and take it for a great honour, to be thus received by some of the grandees and great practitioners; and their friends believe whatever is bestowed on them in this way very well and honourably employed."

These views—advanced in relation to the education of physicians in the seventeenth century—we consider perfectly applicable to that of all classes of medical practitioners of the present day.

In defending general practice, we do not wish to exalt it above the other branches of the profession. We desire, however, to call attention to social changes now in progress, by which many, educated for the highest departments of practice, find it essential to their interests to act as general practitioners among the wealthy classes, as has long been the case in Edinburgh.[1] It is notorious, that the examinations for the Medical Degree of the University of London are more difficult and searching than that of any other board in the kingdom; yet many gentlemen pass through that ordeal, as the most important qualification for success in general practice among the upper classes of society. We think that the whole profession might be received within the portals of the two colleges, namely, that of the physicians and that of the surgeons; and that the rank and sphere of practice of each member of the medical community might be left to his individual tastes and talents. The sanction, or call, of the profession, should be the chief qualification for the rank of a consultant. Superior skill, when associated with honourable conduct, commands success more certainly than artificial class-distinctions; and, in this enlightened age, the public and the profession respect collegiate status, only when associated with individual worth. Does Sir Benjamin Brodie owe his pre-eminent position to his sterling character, and matchless skill, or to his collegiate honours? Is it the recently conferred fellowship which has given to Marshall Hall an undying name? Or, did the withholding of the fellowship diminish by one iota the glorious renown of a William Hunter, or an Edward Jenner? The colleges, in their jealousy of the claims set forth by the unincorporated practitioners, have little sympathy from the public; who, while they recognize a distinction of grades, and the importance of the study of specialities, are slow to perceive, why these differences should require to be maintained by coercion, and jealously defined by artificial rules.

It is highly advantageous that consulting physicians and surgeons should exist, who, from the superiority of their intellect and the extent or speciality of their studies, may be called in, to advise and assist their professional brethren; BUT IT IS ALSO FAR MORE NECESSARY, that the vast mass of the medical community be so educated, as to be enabled, in situations where no assistance can be obtained, (as at sea, in the colonies, and in the provincial towns and villages of England), to minister, and to minister efficiently, to all the diseases incident to humanity. On the respectability, the education, the talents, and the judgment of this class, (in London called *general* practitioners,[2]) depends, in a very great degree, the health of the com-

[1] In Edinburgh, many general practitioners do not practise midwifery, and of late the majority have relinquished pharmacy (and therewith many patients) to the druggists. With the exception of Mr. Syme, the Hospital Surgeons are family attendants.

[2] The term General Practitioner is hardly understood in the provinces. In a recent official conference with Sir George Grey, Mr. Noble made the following explanation at the request of his colleagues, the medical and surgical practitioners residing in various parts of the kingdom:—"He would make a few remarks on the use of the term general practitioner—a term which had given rise to much unnecessary complication. It was an error to suppose that such a tripartite division of

munity. The wealthy indeed, and the inhabitants of the large cities, may command the services of men exclusively eminent in surgery, in medicine, or in midwifery; but the middle classes, for pecuniary reasons, and the majority of the humble classes by compulsion, *must* avail themselves of the services of the general practitioner. It is, therefore, essential that every scheme of medical legislation should provide for the efficient education, and suitable examination, of this very large and important branch of the medical profession; unless, indeed, we assent to the proposition, that the welfare of the masses of the population is of no importance in the eyes of the legislature, and that the advantages of medical science are to be conferred only upon the rich.

We speak advisedly when we state, that the attainments of the majority of the general practitioners are far below the standard which ought to exist in the present day, amidst the innumerable opportunities of advancement afforded by the general diffusion of science, by the talents of the medical professors, and by the abundant stock of information contained in our great hospitals: and it is to us abundantly plain, that any attempt to degrade this large body of professional men, must inflict the deepest injury upon medical science, without in any degree benefiting the public.

Admitting, therefore, that the consulting physician and the consulting surgeon are necessary components of the medical community, we insist upon the co-equal importance of the general practitioner, nor can we tolerate the idea, that the latter is in any way *degraded*. But on high authority we have been told, that a mark of degradation is affixed to this or that medical practitioner, not because his education is inferior, not because his moral character is suspicious, not because his intellect is more feeble, not because his physical efforts are less strenuous, but (and we blush to write it in the sunshine of intelligence which illuminates the nineteenth century) *because he dispenses his own medicines!* Why, Podalirius and Machaon dispensed their own medicines; and our great father Hippocrates distinctly recommends physicians to have all kinds of medicines always ready in their own keeping, which plan, he says, will make a physician more confident in his practice, and more ready to apply himself to the sick. "A physician," says he in his book περὶ ἐνσχημοσυνής, "ought to have his shop or Ἰητρειον provided with plenty of all necessary things, as lint, rollers, splints; let there be likewise in readiness at all times, another small cabinet of such things as may serve for occasions of going far from home; let him have also all sorts of plasters, potions, and purging medicines so contrived, that they may keep some considerable time; and likewise, such as may be had and used while they are fresh."[1] Galen,

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the professson existed out of London as in it. The only terms that were so much as understood were, *physician* and *surgeon*. Nobody in the country used, nobody knew, the term *general practitioner*. The physician was understood to be he who restricted his practice to internal maladies, with a view to consultation practice, and the surgeon was regarded as making no such restriction. The practice of pharmacy was very much a matter of accidental circumstances. The surgeon who would exclude it in a large community would, from the necessity of the case, include it, if practising in a locality differently circumstanced. General practitioners (if the term be understood of those who practise without either a degree in medicine or a surgical diploma) do not form a twentieth part of the body of the profession. Great mistakes have arisen from confounding the apothecary licensed to practise medicine, with the surgeon in general practice, some employing the term general practitioner in relation to the former, and others to the latter." Sir George Grey and the Lord Advocate seemed to be struck with Mr. Noble's explanation, and requested, as early as possible, to be furnished with the promised memorial. The deputation then withdrew. *Lancet*, May 1850, p. 576.

[1] We give part of the passage from Hippocrates in the original Greek. Προκατασκευάσθω δὲ σοι καὶ μαλαγμάτων γενέα πρὸς τὰς ἑκάστων χρήσιας, ποτήματα τέμνειν δυνάμενα ἐξ ἀναγραφῆς ἐσκευασμένα πρὸς τὰ γενέα· προετοιμάσθω δὲ

also, not only recommended physicians to dispense their own medicines, but he himself kept a repository, or Ἀποθήκη (whence is derived the name of apothecary), where he informs us, his medicines were always under his own eye or in his hand. And without quoting the examples of Hermes Trismegistus, Diocles, Scribonius Largus, Andromachus, Oribasius, and a multitude of others, who pursued the same mode of practice, we may at once come down to our day, and state that Cullen, William Hunter, and Abercrombie, all dispensed medicines to their patients. We shall now proceed to quote some passages from the pamphlets cited at the head of this article, which are nearly all written by Graduates in Medicine and Fellows of the College of Physicians of London, and which all advocate the propriety and necessity of the physicians dispensing their own medicines. Let us first hear Dr. Jonathan Goddard, Fellow of the College of Physicians, and Professor of Physick in Gresham College.

"The dividing and separating of that part of the Art of Physick, which concerns the Preparation and Composition of Medicaments, from the body of it, so as to put the practice of it into other hands, was never heard of in the ages of Hippocrates, Galen, and other ancient physicians; *and hath been judged by some of the chief authors in physick, to be of unhappy consequence to it, upon several accounts.*" (p. 8.) Again the same author writes at page 30; "And it will not be hard for a physician, making use only of a servant or servants, to oversee *and with his own hands prepare and compound* what is necessary for himself to do; and by this means, though he be in full practice, at the expense of a few spare hours, to store himself sufficiently for all his occasions, of such great remedies and secrets of importance . . . Nor can it be any dishonour to a physician thus to employ himself between whiles, *in the making of such choice and important medicines;* as it is upon record, that Hippocrates and his sons, Galen, and other ancient physicians, did the like."

"Besides the securing of the Practice of Physick to Physicians, and the preventing its falling into other hands, which is a more necessary advantage, there is another of happy consequence and more honourable, which, by this course of physicians making their own medicines, may be attained: that is, a great improvement in the art itself, before hinted. For when judicious physicians come to be more familiarly acquainted with the materials of medicaments, and also to experiment and observe operations and processes upon them, especially the more accurate and artificial, as in chymical preparations, they will discover the most advantageous ways of preparation, and the most rational proportions in order to composition; and come to contrive and invent new medicaments, exceeding others in their kinds, and improve, beyond what they can imagine of themselves before they have entered this way, and what they can never otherwise attain, as some learned and ingenious physicians have done." (p. 34.)

The next quotations are from a very learned and elaborate pamphlet by Dr. Maynwaring, who thus, at page 4, adduces the authority of the ancients, in favour of the physicians preparing and dispensing their own medicines:

"Famous Quercitan, upon this question, An medicum deceat φαρμακοποιεῖν? affirms that the ancients were very industrious and diligent in the preparation of their medicines, which they kept in readiness by them, to serve their practice: 'Hippocrates ipse eorum faciem conspuisset, qui præparandorum suorum remediorum scientiam illi detraxissent, quorum veteres vigiles fuerunt custodes.' This, also, is affirmed by Sennertus, a judicious, moderate, and faithful writer, who, handling this question, An medico liceat componere medicamenta? holds the affirmative, both from the antiquity of the custom, as also the utility and advantage to patient and physician: 'Neque etiam præter dignitatem medici esse componere medicamenta, antiqui illi viri pru-

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καὶ τὰ πρὸς φαρμάκιην ἐς τὰς καθάρσιας ἐιλημμένα ἀπὸ τόπων τῶν καθηκότων ἐσκευασμένα· εἰς ὃν δὲ τρόπον πρὸς τὰ γενέα καὶ τὰ μεγέθεα ἐς παλαιῶσιν μεμελετημένα.

dentissimi, medicique peritissimi satis docuerunt. . . . . *Ipsi domi suæ medicamenta composuerunt, neque sibi dedecori, sed laudi esse duxerunt,* si rei humano generi utilissimæ operam impenderent, neque plus rationis manuum suarum, quàm animi haberent ; imò ignaviorum potiùs esse videtur, omnia ministris committere, quorum vel avaritiâ vel improbitate factum est sæpiùs, ut medicamenta præstantissima, quæ *θεῶν χεῖρας* antiqui appellant, vel indoctis empyricis communicarentur, vel corrupta et vitiata authoritatem suam amitterent, nec vires, ob quas ab antiquis prædicabantur, haberent.' "

Dr. Maynwaring then proceeds to prove, that the preparation of medicines was the general custom among the ancient physicians, and that it was continued, in all ages, by their successors, among whom he cites Paracelsus, Libavius, Basil Valentine, Hartman, Van Helmont, Glauber, etc. : and he enforces the adoption of this plan upon his contemporaries, upon the following grounds : I. The improvement and advance of the art itself ; II. The security and utility to the sick ; III. The advantages and satisfaction to the professors. He then argues very strongly, that the pharmaceutic art is the foundation, upon which the whole success of medical science mainly and chiefly depends, and that the origin and invention of physic, sprang at first from an empirical knowledge of medicines. He then lays down the three following positions : "I. That pharmacy, or the dextrous preparation of medicines, is the most excellent and necessary part of physic ; and the main stress of curing lies chiefly in the compleat medicinal apparatus. II. That true skill in pharmacy, and a certain knowledge of medicines, is not gained by reading, but by manual preparations and tryals ; personally observing through the whole process of the medicine, and noting all the circumstances appertaining to it. III. *That the preparation of medicines is the proper and special business of every physician ;* without which experience and certain knowledge in medicines, *he cannot be compleat in his profession,* but very insufficient *in the grand and most weighty part of the medical science.*" (p. 8.)

The same author, at page 17, argues that "the true knowledge of medicines, and improvement in pharmacy, depend upon practice in preparation, and that, therefore, this knowledge and improvement ought to spring from the physician, *and be reposited in him ;* else he cannot be able to direct, correct, and improve medicines ; *that, without such knowledge, he is very unfit to undertake the management of the sick ;* very unskilful *to adapt, order,* and *appoint medicines ; very unable to perform a cure :* that his title and abilities are very incongruous, and more properly he deserves the character of an empirick, *in the worst sense,* than Doctor Medicinæ ; because he is *medicamentorum imperitus.*" He then, again, quotes Quercitan, to the following effect : "'Quàm turpe est medico, sibi doctoris titulum arrogare, et materiam, quâ uti debet, modumque illius parandæ ac administrandæ ignorare, patique se à ministris suis superari ? an ignoras experientiam rerum esse magistram ? ergo pharmacopœius eam callens magister erit, tu verò bruta statua cathedræ affigeris.'"

He next quotes the authority of Doctor Thompson, whom he styles "a learned physician and expert operator in medicines," and who says, "'that physicians ought to make their own medicines ; for thereby they shall prepare them with a satisfactory elegance and exactness, improve them to the greater advantage, understand their vertues more clearly, administer them with more discretion, and acquire a far greater confidence of their success ; then may he be styled *θεραπευτικὸς ἰατρὸς,* an officious physician indeed ; otherwise, he can deserve no other title than of a mere trifler in his function, acting *ἀκεδεστώς, carelessly, perfunctorily, and cruelly.*'" (p. 20.)

Dr. Maynwaring thinks (page 43) that the doctor "is not required to toil in the drudgery of the servile works that belong to medicines, but that he should supervise and take care there be no neglect, mistake, or abuse ; he may have workmen to do the work, but, in the interim, he must be workmaster, to design the medicine, to appoint, correct, and overlook the whole

business; he is ἐργοδιώκτης and ἀρχιτέκτων: and where the curiosity, mystery, and intrigue of the art lies, *that is to be done by his own hand, that is his closet business.*"

To sum up a great quantity of matter in a few words, it seems to be evident, from the contents of the pamphlets now lying before us, that the whole of the medical learning of England in the seventeenth century, was confined to the members of the College of Physicians of London, who, no doubt, were able, learned, and accomplished men, but, in point of medical acquirements, far below the general practitioners of the present day; that, owing to the expensive collegiate education of the physicians, and to their rank and style of living, they practised almost entirely among the rich and powerful; that, from the very necessity of the case, the poor, and many of the middle classes, were obliged to have recourse to the apothecary (who, in that day, was little better than a tradesman), or to quacks and mountebanks, for the treatment of their diseases; and that the physicians endeavoured to remedy this state of things, by recommending their brethren of the London College to take the preparation and dispensing of medicines into their own hands; and it cannot be denied that reason, justice, and expediency, were on their side of the argument.

It is impossible, in this place, to avoid remarking, that the ignorance of the apothecary and the mountebank (who, however, were the accepted medical attendants upon the poor and many of the middle classes) was a standing subject of reproach till the beginning of the present century, but that the Act of 1815 entirely altered the condition of the profession; and we cannot acquit of deliberate misrepresentation, those who endeavour, by the mere use of a name, to confound the *Apothecary* of the nineteenth century with the *Apothecary* of the seventeenth. Those who do so, know perfectly well, that the educated apothecary of our own day, is the counterpart of the physician in the time of Charles II, and that the apothecary of that day is the counterpart of the druggist of the present; and know, moreover, that the educated physician in 1850, owes his just elevation to the honourable position which he holds in science and in society, to the *vis à tergo* communicated by the education of that numerous and meritorious class, which some authorities affect, with equal want of reason and justice, to treat with contempt.

We shall conclude these extracts with the following curious medical advertisement from a newspaper called the *Postman*, of January 16, 1700. (The italics are our own).

"At the Angel and Crown, in Basing Lane, near Bow Lane, lives J. Peckey, *a Graduate in the University of Oxford, and of many years standing in the College of Physicians, London*: where all sick people that come to him may have for 6d. a faithful account of their diseases, and plain directions for diet and other things they can prepare themselves: and such as have occasion for medicines *may have them of him at reasonable rates, without paying anything for advice*: and he will visit any sick person in London or the Liberties thereof, in the day-time for 2s. 6d., and anywhere else within the Bills of Mortality for 5s."

Notwithstanding the above quotations, we by no means advocate the necessity of physicians dispensing their own drugs in the present day. Our only object has been to shew, both from the authority of antiquity and from the dictates of common sense, that there is nothing which is derogatory or degrading in such a practice; and admitting, as we do, the propriety and advantage of the division of labour, we are disposed to respect a class of men who do not dispense their own medicines, but, at the same time, we cannot join in depreciating those who do. It is also our fixed opinion, founded upon no small amount of experience and observation, that every member of the medical profession, from the court-physician to the union-surgeon, and whether he be physician, surgeon, obstetrician, general practitioner, or spe-

cialist, *should be instructed in practical pharmacy, in the early part of his career.* We care not whether this be accomplished by an apprenticeship, by service at the hospitals, or by attendance upon a union: *we are convinced that it ought to be done,* and that those who depreciate the knowledge of pharmacy, are inculcating principles which are as absurd in theory, as they are dangerous in practice; absurd in theory, because pharmacy, although not the *only* foundation of therapeutics, is a very necessary and a very important one; and dangerous in practice, because ignorance of practical manipulation may lead prescribers into serious errors. We repeat the opinion expressed in our last number, that every student should be compelled to wield, for some time, the instruments so contemptuously denounced by Mr. Skey: that he should be able to compound medicines, to make tinctures and infusions and decoctions, and to roll up pills; and if he be too proud to submit to these occupations for a short period of his career, he ought not to enter into the medical profession at all. We do not advocate, and we never have advocated, the justice or the expediency of anybody devoting *five years* to such avocations; but considering as we do, that medicine and surgery are practical sciences, that many of the duties performed by the practitioner are necessarily repugnant to human nature, and only to be reconciled to him by his ardent desire to benefit his fellow-creatures, we are convinced, that the most able and the most successful professor of the healing art will be the man who has not hesitated, but who has cheerfully consented, to perform *all the manipulations of his art;* who has himself sought, in the structure of earths, minerals, and plants, the powers which are antagonistic to disease, and who has himself separated or united their component parts in seeking for new or effective forms or combinations: and we maintain, that such practical knowledge is an admirable and essential preparation for his researches into the anatomical structure and physiological laws of that marvellous economy, whose derangements are to become the study of his after life.

We therefore conceive, that it is quite ridiculous to endeavour to fix a brand of inferiority upon those members of the profession who dispense their own medicines. The plan is, we believe, often one of great convenience to all parties, both practitioners and patients, and is, in some cases, the result of imperative necessity. It is, when judiciously carried out, a great boon to those who cannot afford to pay separate accounts to the doctor and the druggist, and who prefer to give their fees to the man of skill. Drugs, judiciously administered, are the instruments used by the practitioner in the cure or alleviation of disease; and it is of no consequence, as regards the success of the treatment, who dispenses them, so that their composition be superintended by persons possessed of competent pharmaceutical knowledge.

But while we have thus argued (and we hope effectually) against the absurd and ungenerous attempts which have been made to lower one branch of the profession, in order arbitrarily to exalt another, we are not disposed to defend the abominable *abuses* to which the system of sending out medicines, *and of charging for those medicines,* has too frequently given rise. We are no friends to that miserable system of medical remuneration, which is founded upon the plan of sending enormous quantities of medicines, which, if composed of inert materials, can do no good, and if of active ingredients, may do much harm. *There is nothing whatever in the present constitution of the medical profession, which necessitates the sale of drugs, for the purposes of professional remuneration;* and, if the whole of the members of the medical community were to abandon the system of charging for drugs, *there is no law whatever to prevent them from doing so.* We believe that such a desirable consummation is not very far distant, as the system of charging for attendance, with or without drugs, is becoming daily more and more general.

Believing, as we do most sincerely, that medical science has advanced, and is advancing by rapid strides; feeling, as we do, that the medical profession is inferior to no other, we are anxious that all its professors—whether

they minister in peace, or amid battles, in the palaces of kings, or in the cabins of the poor—should be deeply impressed with the dignity, the sacredness, and awful responsibility of their high calling. Were we each, as individuals, to correctly realise our position, the profession as a whole would at once be elevated in utility and public estimation, far above that point to which the most disinterested and enlightened legislation could raise it. "The sphere of other men's labours is bounded by time. The great paintings, and sculptures, and temples of this world ; its fleets and its arsenals, its handiworks of all kinds, will be left behind on the shore of this dead earth, and be found not in the world to come. But to our calling belongs this strange peculiarity, that the objects of our art are as immortal as ourselves. They will go before us, or accompany us, or follow us, and be all forthcoming at the great day. We shall meet our patients again, and have to answer to God in their hearing for all that we did to them, whilst we were together upon earth." [1]

The education of the medical profession solicits our careful attention, in relation to the topics considered in this and a previous article ; but the limits assigned to us having now been almost reached, we must leave it for future discussion.

In the meantime, we would conclude with three short paragraphs, which, though they may appear mere truisms or platitudes to many, are nevertheless so generally lost sight of, that it cannot be useless to give them prominence in this place.

1. Medicine, Surgery, and Midwifery are not distinct sciences, but inseparably and essentially one : for the convenience of the public, and the interests of individuals, they may be honourably practised either collectively by the same, or separately by different persons. The scientific physician, the scientific surgeon, and the scientific obstetrician, as well as the scientific professor of medicine, surgery, and midwifery—if equally competent in their respective spheres, and equal in moral qualities—are of equal importance in their profession, and of equal value to society.
2. The physician, surgeon, obstetrician, or general practitioner, who supplies his patients with the necessary medicines, does not *ipso facto* offend against professional propriety : and those only who sell drugs, who levy fees with reference to the quantity of physic sent in, deserve the opprobrium of being half tradesmen, and half professional men.
3. The highest rank in the medical profession ought to be conceded to those who (being of blameless life, and strict honour) are pre-eminent for their learning and their skill. To such men only ought medical teaching to be entrusted ; on such men only ought collegiate fellowships and state honours to be conferred.

Description of an Improved Truss, constructed by Staff-Surgeon G. R. Dartnell, and now in general use in the Army. London: 1850.

The inventor does not pretend to claim for this instrument any originality, except as a combination. It consists of a light and elastic spring of the semicircular kind, the fulcrum being placed behind, near the top of the sacrum, and the resistance in front. It has a graduated downward curve at its anterior extremity, which brings the pressure of the rupture pad directly upon the upper hernial opening and the inguinal canal. The spring has a casing

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[1] Wilson, George, M.D. On the Sacredness of Medicine. In Lectures on Medical Missions, p. 206. Edinburgh: 1849.

of padded leather, continuous with which is a strap of the same materials which, passing round the opposite hip, and buttoning to the pad in front, is intended to steady the fulcrum, and keep the instrument in its place.

The anterior or rupture pad is formed (like Dr. Chase's American truss) of hard wood polished, and has a flattened oval shape.

The back pad is flat, formed of strong leather, padded on the inner face, and furnished with two bridles on the outer one for connection with the spring. This pad rests in the hollow of the back, or a little below it; but if the patient be not emaciated, and the spring required be not a strong one, the back pad is liable to slip off altogether.

The advantages of this truss may be stated as follows:—

1. It is lighter than any other instrument of the kind with which the inventor is acquainted; the average weight of the single truss being about four ounces.

2. From its lightness, small size, and close fitting to the person, when properly adapted and applied, it is worn by the patient almost without his being aware that he has such an instrument on him; and it is imperceptible under any dress—a matter of some importance with military officers who wear the shell jacket.

3. It is simple in its construction, and therefore of comparatively low price, and easily altered or repaired by any ordinary mechanic. "A simple instrument," says Lawrence, "when well made, answers every end which can be accomplished by more complicated ones, and is therefore preferable, for reasons that must be obvious."

4. The rupture pad being of hard wood (box is the best) or of ivory, is imperishable, as it does not absorb the perspiration, and will not chafe or excoriate the skin; if preferred, however, this pad may be covered with a cap of chamois leather or flannel, renewable at pleasure.

5. A material advantage derivable from the wooden pad, is the facility with which it can be modelled, or altered, or a new one made, by any handy person, to the size or form required for any special case. When the pressure, for instance, is to be made on any one particular spot, the pad may be more rounded; if the pressure is to be general, it should be flatter; when the hernia is old, and the protrusion takes place near the pubes, the pad should have something of a triangular shape; or if the hernia be what is called "direct", the pad may be modelled with a rounded prominence or nipple on any required part of its face, in imitation of M. Malgaigne's mushroom pad. This nipple being applied exactly to the spot where the protrusion takes place, fills up the aperture like an operculum, and effectually prevents any protrusion of the bowel.

6. By the small size of the anterior or rupture pad, as compared with those of most other trusses, and the place it occupies when properly applied, the spermatic cord is effectually preserved from injury; and the pressure being made on the inguinal canal, and the upper hernial opening, instead of the lower, there is no pressure on the pubes, nor is there any danger of strangulation or injury of the gut within the inguinal canal.

7. By a trifling modification of the anterior curve of the spring, and a slight alteration in the shape of the wooden pad, the truss is equally applicable to a femoral, as to an inguinal hernia: and has been worn by many female patients with the greatest efficiency and comfort.

The following Report is selected from a large number of recommendatory notices:

"Fort Pitt, Chatham, 11th July, 1846. Proceedings of a Board of Medical Officers, held by order of the Director-General of the Army Medical Department, to report upon a Truss for Inguinal Hernia invented by Staff-Surgeon Dartnell, as to its claims as compared with the trusses hitherto in use.

The Board have seen satisfactory trials of the truss, made in this and the Detachment Hospitals, and are satisfied that it is the most efficient instrument

of the kind they have seen; and in their opinion is peculiarly adapted for general use in the Army. The truss is strong and durable, and so simple in its construction that it may without difficulty be made or repaired by an armourer-sergeant; and is, in the opinion of the Board, calculated to give the most perfect security, as well as greater comfort than others, to the wearer. (Signed) J. French, M.D., *Principal Medical Officer, President.* Wm. Ford, *Staff-Surgeon, 1st class.* Samuel Piper, M.D., *Surgeon, Provisional Battalion.*"

On the Nature and Treatment of Diseases of the Kidney, connected with Albuminous Urine (Morbus Brightii). By. G. Owen Rees, M.D., F.R.S., London: 1850.

The present treatise by Dr. Rees, is one of the best of the many works which have been published upon that numerous class of diseases, comprehended under the name of Bright's Disease. The author is, for many reasons, admirably suited to the elucidation of this important branch of pathology; for he is an excellent chemist and physiologist, an acute observer, and an accurate and logical thinker. His position at one of our largest metropolitan hospitals, has given him great advantages which he has not failed to improve; and all his writings, while they are far from being deficient in sound theory, bear in addition the marks of practical experience. The book now before us is but small in compass, but it is rich in information, and every page will amply repay perusal.

In treating of the Morbid Anatomy of the kidney in albuminuria, the author, after alluding to the different conditions of the organ described in this disease, by Bright, Rayer, Christison, and Rokitansky, proceeds to examine with great acumen the views advanced in very recent times by Dr. Johnson and Mr. Busk; the former considering that the Morbus Brightii is "primarily and essentially an exaggeration of the fatty matter, which exists naturally in small quantities in the epithelial cells of the healthy organ": and the latter, that adhesive inflammation of the tubuli uriniferi and venous plexus of the kidney is "by far the most frequent cause of chronic albuminuria, and what is termed granular degeneration of the kidney." Dr. Rees, however, combats the first view upon chemical grounds; and, taking advantage of the power possessed by ether of abstracting fatty and oily matters from the surrounding textures, shows from his own experiments, that an oily or fatty *appearance* by no means indicates the presence of fatty *matter;* and in one very striking example, in which he examined chemically a kidney possessing a greasy appearance, he found less fat than in a kidney which was known to be perfectly healthy.

Dr. Rees considers, that it is now pretty certainly established that the greater number of cases of Kidney Disease, connected with albuminous urine, are the results of inflammation, probably of an adhesive character, affecting the organ and causing deposit in its substance, thus constituting a state which may or may not be followed by contraction. He admits that congestion may in some cases precede or even accompany this cachectic deposit, but does not consider it probable that congestion is a *necessary* antecedent to all chronic forms of the disease.

The presence of Albumen in the urine is almost always an indication of some disordered condition of the kidney, although there are a few instances where the urine is found albuminous without the presence of renal disease, as for instance, during the last hours of life, in serious obstructions to the passage of the blood through the heart or great vessels, and in hæmaturia. But Dr. Rees does not believe that dyspepsia, a full meal of animal food, or the free administration of mercury (all which causes have been described as giving rise to albuminous urine) can really produce the alleged change in the constitution of the renal secretion. In illustration of the statement that

mercury does not give rise to albuminuria, Dr. Rees gives the result of fifteen cases of persons under the influence of mercury, in not one of whom was albumen found in the urine; and he has moreover observed cases, in which the urine contained albumen, but became freed from that substance under the use of mercury.

The tests for albumen are carefully described, but they do not differ from those which are now well known to the profession.

In treating of the PATHOLOGY of the Disease, Dr. Rees very properly throws out the suggestion, that its intimate nature is probably to be sought more in some depraved or altered condition of the blood itself, than in lesion of any organ, but at the same time admits that the chemistry of the present day is not sufficiently accurate or refined to enable us to determine the aberration from the healthy constitution of the vital fluid; and he concludes, that "so far as our present knowledge extends, it is in the tissue of the kidney that we first trace the deviation from healthy action for the production of albuminuria."

In considering the state of the *Blood* in this disease, its most obvious and important change is of course described as consisting in the loss of its albumen; and the deficiency of the red corpuscles, which marks the advanced stages of the malady, is accounted for by the following very ingenious theory. The fundamental propositions of this theory are: "I. In health the corpuscle is supplied with nourishment by the chyle. II. The chyle is of lower specific gravity than the liquor sanguinis in which the corpuscles float. III. In the early stages of the Morbus Brightii, the specific gravity of the liquor sanguinis is greatly diminished." The author then proceeds to argue, that in Albuminuria the chyle is of greater density than the liquor sanguinis, and therefore than the contents of the corpuscles, the consequence of which is, that as by the laws of endosmosis and exosmosis the heavier fluid passes in more slowly than the lighter fluid passes out, the chyle is unable to penetrate the corpuscles, which are thus deprived of their nutrient matter and consequently of their hæmatosine, and hence the pale and watery condition of the blood.

In treating of the state of the *Urine*, the average quantity excreted, the specific gravity, and the physical appearances are all carefully described, as also the peculiar structures discernible by the aid of the microscope, such as blood-corpuscles, epithelium scales, mucus-corpuscles, and the casts of the smaller uriniferous tubes. Dr. Rees considers the presence of oil-globules in albuminous urine to be rather a concomitant of the disease, than necessarily connected with it.

The DIAGNOSIS of this disease is attended with considerable difficulty, especially in the early stages, for the symptoms are often so inconsiderable as to escape the notice of the practitioner and even that of the patient; nor have any certain means been hitherto discovered, to enable us to distinguish the different morbid conditions of the kidney, which, however distinct in their anatomical characters, agree in producing an albuminous state of the urine. We ought however carefully to discriminate, if possible, the *acute* from the *chronic* form of the malady: because the former, by timely measures, may frequently be cured; while the latter too often baffles the skill of the most accomplished practitioner, and sooner or later terminates the life of the patient. The *chronic* form is characterised by a far less degree of severity in the symptoms, as compared with the acute; and indeed so obscure is this form, that it has often been overlooked altogether, and even the anasarca, which by some is considered a pathognomonic sign, is sometimes wholly absent. The following advice is therefore very appropriate; "Whenever cases of debility, with tendency to nausea, present themselves to your notice, it is well to inquire into the state of the urine; and, in such cases, if you also find that the patient complains of frequent desire to pass urine during the night (even though there be no pain in the loins, or anasarca any-

where), you will often find albumen in the urine, and all the symptoms of kidney disease may manifest themselves within no great length of time." A point of great practical importance, also, is to be careful not to confound the pallor of albuminuria with the anæmic condition observed in young girls at or soon after puberty; and the only mode of drawing the distinction, is by the chemical examination of the urine.

The COMPLICATIONS of Albuminuria are treated at some length. The existence of *anasarca* and of *passive effusion* into the cavities and tissues of the body are prominently noticed, as among the most usual concomitants of the disease. Diarrhœa, which was stated by Dr. Christison to be more frequently observed in Edinburgh than in London or Paris, is now, according to Dr. Rees, a very common attendant upon the disease, as he has observed very many cases of it in his own experience. The *Affections of the Brain, of the Heart, of the Liver*, the supervention of *Bronchitis, Pleuritis, Peritonitis, Pneumonia*, and *Phthisis*, are all briefly adverted to; but we are not aware that the views adduced upon this part of the subject contain any matter for special remark.

The CAUSES of the disease are very briefly alluded to, as the author considers that they have not yet been very satisfactorily ascertained. Among the principal *predisposing causes*, however, he enumerates the scrofulous habit, and intemperance; and among the chief *exciting causes*, exposure to a cold or damp atmosphere, or the presence of any condition tending to interfere with the proper discharge of the function of the skin. The author regards the Albuminuria which follows scarlatina in rather a serious light, because he is of opinion that although it is often cured, yet it sometimes insidiously leads to severe or even fatal disease; and that, in cases which have been apparently cured, the kidney affection has nevertheless returned, and has eventually destroyed the patient.

The TREATMENT must depend upon the greater or less severity of the symptoms, upon the constitution and previous habits of the patient, and upon the acute or chronic form assumed by the disease. As a general rule, we should avoid blood-letting in every form, in all cases where the patient is anæmiated, *even though inflammatory complications of the acutest character may be present*. The treatment of the acute and early forms of the disease by Dr. Rees, does not differ materially from that recommended by other authors; but it is judicious and sensible, and consists in moderate cupping to the loins, saline purgatives, diaphoretics, the vapour-bath, and antimonials. The best form of purgative is the compound jalap powder of the Guy's Pharmacopœia, consisting of powdered jalap, cream of tartar, and a small proportion of capsicum; and the best antimonial is the vinum antimonii potassio-tartratis, in doses varying from twenty minims to half a drachm, combined with the liquor ammoniæ acetatis. The compound powder of ipecacuan may also be used with great advantage, as it will often assist in allaying irritability, and quieting the action of the heart. The use of diuretics is by no means to be recommended; and mercury, in all its forms, is to be carefully avoided in the treatment of Albuminuria. With a view to supplying red corpuscles to the blood, the use of iron is strongly recommended, more especially when we at the same time relieve the blood of its superabundant water, which may be effected by means of elaterium. The best form of iron, according to Dr. Rees, is the mistura ferri composita of the *London Pharmacopœia;* and, when the stomach will not bear this, recourse may be had to the vinum ferri, in doses of from one to three drachms, or to the ammonio-citrate or ammonio-tartrate of iron. "The great indications to be answered in chronic cases, are: I. The relieving the blood of its superfluous water; and II. Supplying it with iron to assist in the production of the red corpuscles of the blood." Astringent remedies have, occasionally, been employed with beneficial effect, being administered with the view of stopping the discharge of albumen, and so protecting the blood from farther degeneration. The best astringents are tannin, catechu, and gallic acid.

The treatment of the complications of this disease, must depend upon the nature of the organ or tissue specially attacked, and must be directed by general principles, regard being always paid to the condition of the blood, the urine, and the kidneys, which are always primarily involved.

Considering the great prevalence of Kidney Disease, accompanied by the secretion of albuminous urine; the insidious nature of its attack, and its frequently fatal termination; the numerous complications which mark its progress, or accelerate its march; the modification of treatment required by ordinary diseases, when associated with this formidable malady; and the importance of detecting its existence, if possible, in its earliest stages,—we hail with pleasure the appearance of the present contribution, by Dr. Rees, to our knowledge of the nature and treatment of these important affections, and we consider that every medical man ought to give the volume a place in his library.

Anormal Nutrition in the Human Articular Cartilages: with Experimental Researches on the Lower Animals. By P. Redfern, M.D. London, Lecturer on Anatomy, Physiology, and Histology, and Examiner at the University and King's College, Aberdeen. 8vo. *Numerous Wood-cuts.* pp. 86. Edinburgh: 1850.

This is an elaborate and able monograph, which originally appeared in detached papers in the *Edinburgh Monthly Journal.*

The Conclusions at which the author has arrived are thus stated:—

"1. That the whole of the known forms of disease in articular cartilages are connected with changes in the texture, which are essentially similar to each other.

"2. That during the progress of these changes, the cells of the cartilage become enlarged, rounded, and filled with corpuscles in lieu of healthy cells, bursting subsequently, and discharging their contents into the texture on the surface; whilst the hyaline substance splits into bands and fibres, the changed hyaline substance and the discharged corpuscles of the cells afterwards forming, in many cases, a fibro-nucleated membrane on the surface of the diseased cartilage.

"3. That these changes are alone referrable to an anormal nutrition as their immediate cause, and in no case to mechanical or chemical actions, such as attrition or digestion in a diseased secretion.

"4. That most extensive disease may be going on in many joints at the same time, and may proceed to destroy the whole thickness of the cartilage in particular parts, without the patient's knowledge, and whilst he is engaged in an active occupation.

"5. That the disease commences most frequently upon the free surface; but it may proceed from the bone to affect the attached surface, or it may take place in the middle of the thickness of the cartilage.

"6. That it is at least very doubtful, if the symptoms which are believed to indicate the existence of ulceration of articular cartilages, are not really dependent on a morbid change in the bone.

"7. That disease of the whole thickness of an articular cartilage, at particular parts, admits of a natural cure, by the formation of a fibro-nucleated membrane from the substance of the cartilage, without the occurrence of any new exudation." pp. 65.

Principles of Health and Disease: an Inaugural Dissertation of the University of Edinburgh. By David Nelson, M.D., Edinburgh, Physician to the Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham. 8vo. pp. 113. London: 1850.

This Thesis reflects great credit upon the author. It is correctly written, and contains, in a well-arranged form, and within a small compass, much sound information and excellent reasoning.

CRITICAL DIGEST OF THE BRITISH AND FOREIGN MEDICAL JOURNALS.

PRACTICE OF MEDICINE AND PATHOLOGY.

TWO CASES OF ECLAMPSIA NUTANS.

The following cases of Eclampsia Nutans, recorded by Dr. Faber of Wartenberg, in the *Journal für Kinderkrankheiten* for March and April 1850, will be interesting, in connexion with the paper read by Dr. Willshire, at the Westminster Medical Society, on 30th March, and reported at p. 590 of this number.

Very little mention has hitherto been made of this remarkable affection, which evidently bears a relation both to convulsions and to paralysis. Of the German writers, only Romberg, I believe, has noticed it. I do not know whether it is identical with, or only akin to, the *paralysis agitans*, which has been noticed for some time in England, I believe by Elliotson. I will merely relate the two cases which have occurred to me, without offering any remarks.

Case i. This was a girl, aged three years, the daughter of a reduced tradesman, who managed some small agencies, but was of weak mind, and in whose family several cases of mental disease had occurred. This was his only surviving child. An elder child, a boy, had died of convulsions at an early age; but of what form these were, I was unable to ascertain. The subject of this case was at first healthy, but was rather late in her first dentition, and was also weak on the legs. She always looked pale, but was apparently healthy. About three months before I saw her, she began to complain frequently of headache, slept much, and had less appetite than usual; the tongue was also somewhat coated. Mild aperients were prescribed, but with little good effect. The child suddenly began to squint a little with one eye, and sometimes to nod with the head, especially towards the left side, as if the left sterno-mastoid muscle drew the head by starts in that direction. These bowings of the head at first occurred three times daily, and lasted some minutes each time, during which the head remained bowed. The attacks increased in number and frequency; sometimes the head fell into a series of truly alarming tremulous convulsive motions (*Zittern und Schwirren*), in which the bowing forward was pre-eminently conspicuous. The child was treated, but without success, by purgatives, baths, cold affusions, antispasmodics, embrocations, etc. It became drowsy, and was attacked, soon after awaking, with slight convulsions in the arms and legs; and on careful observation it was found, that these convulsions were on each occasion preceded by a brief loss of consciousness, lasting perhaps one or two minutes. These attacks increased, and the child is now quite epileptic. It has each week one, or perhaps two, slight epileptic attacks, instead of which there is sometimes a violent convulsive bowing of the head, without, as it appears, any loss of consciousness. It has an imbecile appearance, and its mental faculties are less developed than is usual in children of the same age.

Case ii. This was a boy, six years old, the son of a respectable citizen of this place, who enjoys excellent health, and in whose family there have not been any particular nervous or mental affections. The mother is a healthy woman. During her pregnancy, she appears to have been much alarmed by a fire which broke out in the neighbourhood of her habitation; this I merely mention, without laying much stress on it. She was only able to suckle her child for a few weeks. Having lost her milk through a violent diarrhœa, which was subdued by a somewhat rigorous diet and antiphlogistic treatment, she was obliged to employ a nurse. The nurse appears to have been

very quarrelsome and passionate, and subject to nervous attacks. Nevertheless, the child throve excellently; it cut its teeth easily and quickly, and learned to walk early. When the boy was four and a half years old, he had measles, from which he recovered favourably. At the commencement of his sixth year, he was sent to school, and gave evidence of excellent mental capacity. I was first consulted about him when he was nearly six years old. I was told, that while playing with some other boys near a large pit filled with water, he had slipped in walking over a narrow wooden bridge, and had fallen into the pit, from which he was removed with difficulty. Being quite wet, he was carried home; and, having been dried, was put to bed, where he passed several days in a continual drowsy state, without having any true febrile symptoms. Whether from the fright or the chill, he was not from this time so cheerful and lively as before. He cried out frequently in his sleep, and had disturbed rest: his bowels were costive. One day, being scolded rather severely by his father for some slight offence, he suddenly began to nod with his head, and continued to do so for two or three minutes, the face being at the same time somewhat distorted. At first this was thought to be a trick, or evidence of stubbornness; but the bowings recurred several times in the day; since which they had increased, and were often so violent, that even eighty bowings could be counted in a minute. The child henceforth wasted, and had a peculiarly decayed appearance. On seeing the child, I found all this description confirmed. The patient, generally quiet and somewhat melancholy when moving about, suddenly began to nod with the head. The head bent forward as in familiar salutation, at first at intervals, but soon more and more quickly, as if the child were violently excited; the face was also distorted. This attack lasted about two or three minutes; then the movements ceased, and the child appeared much fatigued. On many days, there was only one attack, generally at 11 A.M.; and there was sometimes an additional paroxysm in the evening. As far as I could ascertain, the child retained his consciousness during the attacks: they were not sudden, but he felt their approach, and sought something to lean or sit on. He had, for some weeks lately, become evidently weaker; he seemed pale and suffering, and had a certain expression of stupidity in his countenance.

As to the nature of the bowing: is it a partial chorea? Does the almost regularly recurring bowing of the head belong to the category of choreic convulsions, or is it a convulsion *sui generis?* It cannot be classified with epileptic convulsions, for a principal symptom—the loss of consciousness—is wanting, at least in the latter of the two cases. Does the disease proceed from the brain, and only re-act on the spinal chord, or is the latter its original seat? The most careful examination of the subject of the second case has failed to afford any explanation. The child never has pain; there is no tenderness either in the head or spine, and besides this there is nothing abnormal. The bowels are indeed sluggish, but the child has been sufficiently purged. There is no trace of worms. Friction of the nape of the neck with tartar-emetic ointment, as well as dry rubbing, have proved ineffectual; the internal use of quinine and antispasmodics has produced no improvement; cold affusions and gentle douches in a warm bath seemed to aggravate the malady. At present the child is taking iron, and seems to improve.

GRANULAR CORPUSCLES IN THE OPTIC CHIASMA IN AMAUROSIS.

At page 387 of last number for April, we gave an account of the discovery of Granular Corpuscles in the Nervous Centres in cases of Hemiplegia, by Dr. Tuerck. The *Zeitschrift der K. K. Gesellschaft der Aerzte zu Wien*, for November and December1849, has since reached us, in which Dr. Türck describes similar bodies as having been found by him in the Optic Commissure in cases of Amaurosis. The following is an abridged translation of Dr. Türck's communication.

I have lately carefully examined the optic apparatus in three amaurotic patients in my practice, and have found in all one and the same morbid condition of the commissure of the optic nerves. The individuals were from eighteen to 24 years old, and of feeble constitution. One of the patients, (a journeyman baker), attributed the disease to the influx of the dazzling light of a glowing oven, to which he was exposed more frequently and constantly than usual, for a fortnight before being attacked. The Amaurosis was more or less perfect, in one case amounting to entire inability to perceive light; in all the cases, it had commenced with cloudiness of vision for one or two weeks, and in one, had suddenly become worse during the night. In all, there was remarkable irregularity of the power of vision. The pupil was greatly dilated in the most intense case, and in two, it was angular in one eye: it often alternately contracted and dilated when light was steadily held before the eye, but was unaffected by the change from light to shade. The motor power of the iris was not lost; yet, from paralysis of the optic nerves, the impression was not conveyed from the retina to the central organ of the motor nerves of the iris. During transient improvement of vision, the pupil was obedient to the stimulus of light. The movements of the eyeball and eyelids were normally performed. The baker had complained of pain in his eyes, at the time when he was exposed to the extraordinary influx of light. Pain in the head, and vomiting, were observed in all the cases. The connexion of these symptoms with the disease of the commissure, could not be traced in two of the cases, in which there was also chronic disease of the brain; but it was very evident in the third patient, who died at a later period, from inflammation of the spinal chord.

The optic commissure, externally, appeared normal, with the exception of slight enlargement, and a few conspicuous fawn-coloured spots on the cut surfaces of the divergent optic nerves. On being cut into, it was found infiltrated with a sero-saline fluid; its substance was remarkably spongy, and presented fawn-coloured spots. The nervous matter was partly undistinguishable, partly recognisable, under the microscope, and presented, as well as the fluid matter, a large number of granular corpuscles and elementary granules, like those which are found in cerebral or spinal inflammation: hence evidently arising from a recent process of inflammation, or at least of exudation, in the optic commissure. The morbid changes extended three or four lines along the origin of the optic nerves: the remaining part of the nerves, the retina, and the remaining parts of the eye, were healthy; so also were the corpora striata, the optic thalami, the corpora quadrigemina, and the tuber cinereum, as well as the whole base of the brain. *The Amaurosis therefore depended on a perfectly limited inflammation or exudation in the commissure of the optic nerves.*

The affection was complicated, in one case, with acute inflammation of the spinal chord, of a later date; in a second, with chronic hydrocephalus of long standing, and recent apoplexy; and in a third, with old cerebral cancer and consecutive hydrocephalus. The external and opposed surfaces of the convolutions in the two latter cases, presented signs of pressure. This would formerly have been taken as explanatory of the Amaurosis, especially in the second case, where the left optic thalamus, and the left pair of the corpora quadrigemina, had been pressed forwards and to the right side by an apoplectic clot in the left posterior lobe. But the explanation can only be found in the state of the commissure which has been described. In both patients, as was shewn both by symptoms during life, and by *post-mortem* examination, compression had existed for a considerable time, without producing Amaurosis. In other cases, also, pressure on the brain has not induced Amaurosis.

In connexion with the above remarks, I may mention, that I found a similar condition in a man, of whom I could only learn that he had been blind in one eye for several years. The left anterior part of the commissure, as well as a portion six lines in length from the commencement of the left

optic nerve (especially the latter), were atrophied, of a reddish grey colour, and contained numerous granular corpuscles and elementary granules. With the exception of slight atrophy of the remaining part of the left optic nerve in its passage to the eye, the other portions of the visual apparatus were normal.

Although the number of observations has been few, yet, as the same appearance was found in all the cases, it is reasonable to expect, that the disease of the chiasma, just described, will be in future frequently found, and will effect a change in the doctrine of the cause of Amaurosis.

[More extended observations by unprejudiced observers, are required, before this point can be considered established. In the case of the baker, retinitis was probably induced. The fawn-coloured, or buff deposit, as a result of inflammation of the retina and optic apparatus, has long since been observed, especially by Langenbeck and Wardrop; but interesting as the above cases are, they are wanting in the details of symptoms which are necessary to enable us to form a judgment upon the precise influence of the changes described, and the relation held by them as to cause and effect.]

PREVALENCE OF MEASLES, WITHOUT ERUPTION, IN PARIS, DURING THE FIRST QUARTER OF 1850.

The *Gazette Médicale* for 20th April, in the quarterly Report of the Sanitary Condition of Paris, has some interesting remarks, of which the following is a somewhat abridged translation:—

A large number of cases of eruptive fevers have lately appeared in Paris, principally since the commencement of March. Pulmonary catarrh and pleuro-pneumonia have also been remarkably common, especially among children; and, which is an important fact, though often not sufficiently attended to, there have been cases which have seemed to form the meeting-point of the eruption and thoracic affection.

The children have for several days presented all the premonitory symptoms of an acute attack of measles, or scarlatina; viz., coryza, sneezing, redness of the conjunctiva, lacrymation, angina, dry cough, and sweats towards the second or third day. In a certain number, the eruption appeared, and followed its usual course. In others, however, the disease appeared to be determined to the air-passages: some presented unequivocal spots of measles on the neck and chest, which very soon disappeared, while the lungs became engorged—a manifest proof of the identity of the disease affecting such different situations. Moreover, the bronchial and pulmonary affections resembled the external eruption, in being diffused and erratic. Bronchitis would be denoted by the existence of sonorous rhonchi all over the chest; these would be followed by crepitant rhonchi, which would sometimes spread rapidly, and sometimes almost suddenly leave one side, to appear, perhaps definitively, in the other. The pleura has been sometimes affected, but perhaps less commonly than usual.

In some cases, the local chest symptoms have disappeared, with extraordinary rapidity, under the action of a large blister;—a fact which supports the view of the *eruptive* nature of the affection. Sibilant and sonorous rhonchi have sometimes entirely disappeared, and sometimes have been heard on the opposite side of the chest. In most cases, whether the pulmonary affection were localised at once, or erratic, the usual remedies have proved of little service. General bleeding has been very useless; aided by blisters, it has brought about partial amendment, quickly followed by relapse. The Rasorian method of treatment, usually so efficacious, has given moderately satisfactory results. The most successful treatment has been by repeated emetic doses of ipecacuanha and tartarized antimony, with a moderate amount of opium. The effect of these remedies has been to free the air passages from the abun-

dant mucous secretions which obstructed them, and to promote perspiration—an important object in the treatment of a disease, apparently the substitute for a cutaneous eruption Dover's powder has well fulfilled both the indications.

It hence appears, that Paris has lately furnished a large number of examples of a disease, which is not recognised by all pathologists—*measles without eruption*. It was described by Dehaen, Gregory, Guersant, and Blache; but has been disbelieved by many. The cases lately observed can leave no room for doubt.

SURGERY.

CONTRIBUTIONS TO THE DETERMINATION OF THE SEAT OF CATARACTS BEHIND THE LENS. BY M. KERST.

In a man, aged 32, who was considered to be affected with Cataract, there was an extensive, more or less transitory, white spot behind the pupil—it might be said, on the anterior surface of the vitreous body. The flame of a candle produced an erect image in the eye; M. KERST thought he could even perceive the second inverted image of the flame in the opaque spot; but neither this nor the third image were apparent. On the other hand, the opacity became more apparent, and changed its situation as often as the light was shifted, always appearing directly opposite to the body of the flame, so that it could be perceived at all points of the posterior chamber, according as the situation of the light was changed. This could only arise from the opacity occupying the whole surface which could be perceived through the pupil, and becoming apparent from one point to another. The patient was examined by several practitioners. On dilatation of the pupil, he was found to have a so-called amaurotic cat's-eye *(Katzenauge)*.

In a sound eye, when light is held at some distance from it, the rays converge, and form an inverted image of the flame on the retina; but if they are interrupted before they reach the retina (as in opacity of the vitreous body) they form a circle, which illuminates a part of the opacity in the situation directly opposite the flame. In the present case, the opacity must have been behind the lens, in the vitreous body; for if it were more anterior, somewhere in the lens itself, the circle of unconverged rays would occupy the whole extent of the pupil, and then a partial illumination, and the concomitant apparent charge of position, would be impossible. The smaller the illuminated circle is, the deeper must the opacity lie in the vitreous body. As the luminous appearance described by Purkinje and Sanson was not present, but the circle of non-converged rays which has been mentioned, the idea of an operation for Cataract could not be entertained. [*Neerlandsch Lancet*, as quoted in *Zeitschrift für die gesammte Medicin*, November 1849.]

Had the symptoms as well as the appearances been described, a better opinion might have been formed as to the true nature of this case; the "shifting spot" is one of the characteristics of glaucoma, and, combined with other symptoms, assists the diagnosis of the case. The decision not to operate was judicious.

CUTTING INTO THE PERINÆUM FOR THE DIVISION OF STRICTURE. MR. SYME'S CHALLENGE TO THE HOSPITAL SURGEONS OF LONDON.

Our readers are already familiar with the recent discussions which have arisen regarding the treatment of Stricture. In the paper before us, Mr. Syme roundly reiterates the opinion, that Strictures which are "impermeable" in London, are "permeable" in his hands; and that his "operation is founded on the fact, that there is no Stricture of the urethra which can resist the introduction of instruments sufficiently small, and guided with sufficient care." As Mr. Syme stakes his surgical reputation upon the truth of his

views, and the safety and success of his method of curing bad Strictures, we place the following remarkable challenge before our readers.

"Any Stricture which resists the attempt of a surgeon to pass an instrument through it, though impermeable as far as he is concerned, may not necessarily be so in the hands of others. During my incumbency at University College Hospital, there was admitted under my care, a Stricture of the Urethra which had proved impermeable to the diversified efforts of many gentlemen in the naval service for nine years, and finally led to the patient's dismissal as incurable. But, at the very first attempt in this case, I passed a bougie into the bladder, and, in the course of a few weeks, removed all trace of the contraction. Five months ago, a gentlemen from Ireland came over in quest of relief for a Stricture, on account of which, two years before, he had been six weeks under the care of Mr. Liston, who, notwithstanding many attempts, did not succeed in passing any instrument; and although the symptoms denoted a great aggravation of the disease during the time which had subsequently elapsed, I passed a grooved director, divided the Stricture, and was happy to learn, from a letter received to-day, that the patient 'is as well as ever he was in his life.' In the Royal Infirmary of this city, there is at present under my care, a young man who, six years ago, was dismissed from the army of the East India Company, after five years' service, as incurable, on account of Stricture. He had been under the care of various practitioners without obtaining relief, and for the last sixteen months had, once a week, passed a steel bougie fairly into the bladder, as he thought. Finding the symptoms indicative of something more than mere obstruction, and suspecting that there was a false passage through the prostrate, I carefully examined the canal, and succeeded in passing a small instrument into the real cavity of the bladder, where a stone was detected. Chloroform having been administered, I performed the requisite operation upon the small director, which had been introduced, and extracted a stone weighing *three ounces and a half*. The patient had no unpleasant symptom, and has now the prospect of being quite well in a few days. In many more cases which I could mention, the Stricture was deemed impermeable without truly being so; and perhaps those lately reported in the *Lancet* as thus regarded, might have proved no less amenable to treatment. I firmly believe that they would, and therefore feel most anxious to impress the conviction, that the alleged impermeability has no real existence.

"Since the public profession of this belief, founded upon more than twenty years' hospital practice in the largest medical school of her Majesty's dominions, seems to have had no effect in awakening the attention of London surgery, further than to elicit some incredulous sneers and flat denials, I beg to express my readiness to receive into the Royal Infirmary of Edinburgh, any patients who may bring with them certificates from a London hospital, of labouring under *impermeable* Stricture. I shall be happy to pay their expenses in coming and returning by the steamboats, which sail twice a week, and would afford the most comfortable conveyance for invalids frequently disturbed with calls to make water. They will be treated under the observation of students from all parts of the country, and the results of their cases shall be published. If any more satisfactory mode of establishing the truth can be suggested, I shall be happy to adopt it." [*Lancet*, May 1850.]

VALUE OF THE FULCRUM OF MR. GILBERT.

Mr. G. Robins has published the following in the *Lancet*. Lieut. C., R.N., had been for some months under the hands of one of our most eminent dentists, in consequence of severe suffering induced by inflammation of the angle of the lower jaw on the left side, extending to all the neighbouring parts. He was cutting the dens sapientiæ; and, as is not unusual with that tooth, great trouble and difficulty attended its passage through the jaw and soft parts.

Several attempts were made to extract the offending tooth, more especially by means of the elevator, every such attempt being accompanied with intense suffering and increased inflammation, and all failing to remove the tooth. A proposal was then made to extract the molar tooth immediately in front of the other, so as to afford more facility for the application of the elevator. Lieut. C., worn out with suffering, consented, and the key was applied; but so firmly was this sound tooth imbedded in its socket, that it resisted all the dentist's efforts to wrench it out, and, finally, the claw of the key gave way, snapping in the middle. Dispirited by so many failures, Lieut. C. returned home and sent for me. I found him in great suffering, and the whole of that side of the mouth in a state of intense inflammation, the tonsils and fauces being also involved. The gums were much bruised and lacerated.

Having seen in *The Lancet* a very favourable notice published of Mr. Gilbert's Chair and Fulcrum, and knowing him to be a highly educated surgeon, I advised the lieutenant to go with me to see him. To this he at once consented; and, after careful examinination of the mouth, Mr. Gilbert removed the dens sapientiæ (which was not carious) with the aid of a pair of forceps adapted to his patent Fulcrum, with great skill, and without being obliged to sacrifice also the other molar tooth. A few days more restored Lieut. C.'s mouth to a healthy condition; and he has since enjoyed a state of health and comfort to which he had previously been long a stranger, and is now on duty.

The difficulties experienced in the extraction of this tooth were caused greatly by its extraordinary size, it being the largest molar I had ever seen; the existence of exostoses of the fangs, which were hooked and irregular in shape; the partial covering of the tooth by the gum, and the swollen mucous membrane of the mouth; and, finally, because the tooth itself had scarcely risen above the alveolus, which, at this part, is both thick and unyielding.

In consequence of the intense and severe inflammation and swelling which existed, the patient was unable to open his mouth to the full extent, and of course this added to the difficulties attendant on the extraction.

The above is a good illustration of the tooth and the jaw. [From *Lancet*, February 2, 1850.]

OBSTETRICS.

CAZEAUX ON THE CAUSE AND MODE OF PRODUCTION OF THE SO-CALLED PLACENTAL MURMUR.

Dr. Cazeaux has published, in the *Archives Générales de Médecine* for March 1850, a memoir on the subject of the cause of the Placental or Ventral Murmur heard during pregnancy. He refers to the varying situation of the sound, and agrees with M. Depaul, that there is no relation between the place where it is heard and the insertion of the placenta. Its character also varies, sometimes consisting of abrupt sounds, separated from each other by a complete interval of rest; sometimes it is a true *bruit de diable*, having its period of commencement and increase without any interval. "In a word, it presents all the varieties of rhythm, which have been described in the chlorotic murmur. Most commonly, it is simple and intermittent; sometimes continuous, with reduplication (*bruit de diable*); and sometimes, again, simple and continued. I have not yet found it to possess a doubly intermittent type. Like the carotid murmur, it may vary its type in a few moments, presenting in succession several modifications. It also varies in pitch, not only in different women, but even in the same, and during the course of a single auscultation. It is sometimes sibilant, resembling the sound of wind passing through the chinks of an imperfectly closed door; sometimes it resembles the sound produced by the vibration of a bass chord; in other cases, it resembles the cooing of a dove."

The author next enters on an examination of the opinions which have been held, as to the extra or intra-uterine situation of the murmur. The proofs adduced in support of the view, that it is produced externally to the uterus, are, the production of a similar sound by the pressure of tumours, its non-appearance until the uterus has risen sufficiently to press upon the iliac vessels, its being heard most commonly at the lower and lateral part of the abdomen, generally on the right side, and finally, "as has been proved by Dr. Jacquemier, and subsequently by myself, by the circumstance that if, after having auscultated pregnant women in the supine position, they are placed on their knees, with their elbows resting on the ground, so that the weight of the uterus rests on the anterior wall of the abdomen, the murmur, which was before distinctly heard, cannot now be perceived." M. Cazeaux next makes some observations on the supposed intra-uterine production of the sound, as advocated by Kergaradec, Hohl, Dubois, Corrigan, and Laharpe, the latter of whom refers it to the greatly increased number of vascular currents in a given space. His opinion is thus summed up: "In a word, a liquid cannot circulate in a tube, without producing a certain sound by the friction of its molecules against the sides of the tube: the sound, however, is not perceptible to the ear when the tube is isolated, and only becomes so when an infinite number of little channels are congregated on the same point."

M. Cazeaux thus expounds his own theory of the production of the Ventral Murmur:

"The most probable opinion, to me, is, that the murmur is produced in the vessels of the posterior wall of the abdomen, most commonly the iliacs; but I think also that it depends on several causes, and not only on the pressure of the uterine tumour on the great vessels. This is, without doubt, one of the most active causes; but I am also convinced that the abdominal murmur of pregnant females, like that of chlorotic patients, is partly due to the modifications which the blood has undergone. Whatever be the theory received as to the mechanism of the vascular murmurs in chlorosis, we cannot forget the great analogy which exists between the blood in chlorosis and in pregnancy. The ventral murmur also presents an unmistakeable analogy to that of chlorotic patients. It has the same varieties in rhythm and tone; both present the same changes of existence, of rhythm, of intensity, and seem equally in-

fluenced by pressure with the instrument, or by sudden disturbance of the circulation, from violent motion or other causes.

"But it may be asked why, if, in chlorosis, the *bruit de soufflet* is heard most strongly in the cervical region, the bruit of pregnancy should be chiefly heard in the abdomen? In answer to this, I will state that the cardiac and carotid murmur is sometimes heard in pregnant women; but I allow that, in most cases, the abdominal murmur alone is heard. This is easily comprehended. It is rare for the blood to be so much altered in pregnancy as in chlorosis; the globules are not so much diminished, nor is there so great a proportionate excess of water. But if it be correct to suppose, with M. Andral, that the production of abnormal murmurs implies an advanced degree of change, it will be easily understood how they should not be heard in the carotids, where the impoverishment of the blood alone can produce them. But in the abdominal vessels, there is, superadded to the alteration in the blood, a considerable diminution in the calibre of the vessels, from the pressure of the uterine tumour; and the combination of these two circumstances produces a murmur, which they could not do if isolated."

With regard to the objection that the *bruit* in chlorosis is accompanied by a distinct impulse, M. Cazeaux remarks, that this is due to an extension of the first sound of the heart into the neighbouring vessels, which, however, is unable to reach those which are more distant: and moreover, that the cervical murmur is often unattended by any impulse.

Although the abdominal murmur is often lost when the woman is placed on her hands and knees, still this is not always the case, as has been proved by MM. Depaul, Carrière, and Cazeaux. It is very difficult, and often impossible, to prevent the uterus from pressing on some of the large arteries; and in young primiparæ, the unresisting abdominal walls keep the uterus strongly pressed against the parts situated posteriorly. The abdominal murmur is also, according to M. Beau, heard independently of pregnancy.[1] In a patient, affected with ovarian cysts, as determined by autopsy, it was impossible to place the tumour in a position where it did not press on the arteries in the pelvis, and consequently give rise to a murmur. Admitting, also, that compression is not the only cause of the murmur, but that the serous polyæmia of pregnancy also contributes a share, the latter may be supposed capable, if of sufficient intensity, of producing the murmur, even after pressure has been removed from the vessels. When the woman is placed on one side, the murmur sometimes ceases, but is sometimes continued. In the first case, the state of the blood alone is incapable of producing the sound; in the second, either the pressure of the uterus has not been entirely removed, or the alteration in the blood has been competent of itself to cause the murmur. The occasional diminution, and even disappearance of the murmur under pressure, is analogous to what sometimes occurs in the murmurs in the carotids. There is a certain degree of compression, below or above which the murmurs are increased or diminished. Moderate pressure often increases the murmur, both in the neck and in the abdomen.

In some cases, the murmur can only be heard at the neck of the uterus, by means of the metroscope of M. Nauche. In such cases, the murmur may be supposed to be produced in the hypogastric arteries, which are nearer to the cervix uteri than to the abdominal walls. Besides, the epiploon and intestines, lying between the uterus and the abdominal parietes, would be bad conductors of sound.

M. Cazeaux thus sums up: "Like M. Beau, in his excellent memoir on Arterial Murmurs, I admit that the abdominal murmur of pregnancy is partly due to the compression of the large vessels on the posterior wall of the

[1] Dr. Meigs, in his *Treatise on Obstetrics*, in speaking of the uterine murmur, says: "I have certainly heard the same sound after delivery, as before the child was born; and I have heard it, as dependent upon pressure by tumours within the abdomen." (p. 240.)

abdomen; but I believe that the change in the blood contributes, as in chlorosis, to the production of the phenomenon. Most commonly, these two causes act simultaneously; but in many cases, one will suffice."

With regard to the seat of the murmurs, in chlorosis especially, M. Cazeaux believes that all abnormal murmurs are arterial: but he does not think that the theory of their production in veins at all opposes the explanation which he gives of the nature and seat of the abdominal *souffle*. Independently of the iliac veins, the large size of, and the absence of valves in, the uterine veins, will readily allow us to suppose that the murmurs heard during pregnancy may be produced in them.

FREQUENCY OF ULCERATION OF THE CERVIX UTERI: PATHOLOGICAL VALUE OF THE TERM "ULCERATION." BY HENRY BENNET, M.D.

(From *the Lancet*, 18*th May* 1850.)

In *The Lancet* (April 20) there has appeared a paper by Dr. Tyler Smith, previously read at the Westminster Society, on the "Supposed Frequency of Ulceration of the Os and Cervix Uteri", to which I trust you will allow me briefly to reply.

I would remark, that the title of Dr. Smith's paper ought not to have been "On the 'presumed' frequency of Ulceration of the Cervix," but rather "On the pathological meaning of the term Ulceration, as applied to solutions of continuity of the organ in question." The in reality erroneous title of Dr. Smith's paper implies a negation, on his part, of the frequency of the lesions which I have described in my work on Inflammation on the Uterine Organs, under the generic head of Ulceration; whereas such a negation is not to be found in any part of his paper. On the contrary, he admits, in a dozen places, the probable frequency of these lesions, but differs from me in thinking that the term ulceration ought, in sound pathology, to be applied to them.

This is a most important feature in the discussion raised by Dr. Smith; inasmuch as, by thus correcting the title of his paper, and making it really agree with the contents of the latter, we reduce the question at issue to what it actually is, one of *words only*—viz., Are the lesions I describe in my work to be considered forms of ulceration, or are they not?

Before I proceed to the examination of this question, I must observe, that although evidently written with a very different purpose, Dr. Tyler Smith's Essay, from first to last, substantiates and supports my views. By a process of mental reasoning and reflection, if not by clinical experience, he has clearly become a convert to my doctrines respecting uterine pathology, and so fully appreciates the influence of the various causes of inflammatory disease to which the uterine organs are exposed, at the various periods of uterine life—causes which I have developed at length in my work, and which he rapidly enumerates—that he absolutely states: "*If we consider excoriation or abrasion as genuine ulceration, probably no woman ever passes through life without suffering from this form of disease.*" Surely this is outheroding Herod. Although my *clinical* experience has enabled me to say that out of 300 women presenting decided uterine symptoms, and observed in the course of two years' special practice at a large public institution, 222 offered some form or other of ulceration (*including* abrasions and excoriations), I should be very sorry indeed to make such a sweeping assertion as the above; uterine lesions, even of this description, not existing long, without making known their presence by local or constitutional disturbance at least, in the immense majority of cases. Were this assertion true, we then should find nearly every other female we meet, labouring under uterine disease, as, I hear, some practitioners facetiously state to be the case at present. I leave Dr. Tyler Smith, however, to reconcile his theory of what ought to be the state of uterine pathology with what it is clinically found to be; and will only add, that

for my part, although convinced of the frequency of inflammation, and of inflammatory ulcerative lesions of the cervix in women presenting uterine symptoms, I still have great confidence in the power of nature to carry through her operations, generally speaking, without hurt or accident. I consequently decidedly think, that the very great majority of women pass through all the trials of uterine life, without being affected either with abrasions or excoriations. Inflammatory lesions are no more *the rule* with the uterus than with the brain, the liver, or the lungs, although they may be as frequently, or even more frequently, the exception.

With regard to the main question at issue, the proper interpretation of the term ulceration, in applying it generally to all solutions of continuity of the cervix and its cavity, whether slight or considerable, I have followed both the highest authority and the bent of my own mind. I have always considered divisions and distinctions in the nomenclature of disease as useless, and obstructive to progress, unless founded on some real and therapeutically important difference. Thus, were I to write a treatise on diseases of the skin, I should throw aside, without scruple, one-half of the forms of disease now admitted, because they are merely founded on a species of botanical consideration of the visible appearance of the disease, and are, in reality, only different modes of manifestation, and different stages of development, of a malady identically the same, and requiring the same treatment.

Applying these principles of general pathology to the ulcerative lesions produced by inflammation of the cervix and its cavity, instead of describing abrasions, excoriations, and luxuriant ulcerations, as distinct morbid conditions, (which they are not,) I have embodied them all in the general term ulceration, adding, by way of explanation, "that ulceration occupying the cervix uteri may present all the various modifications which suppurating surfaces offer in any other part of the body, *from the minute granulation of a slight abrasion to the livid vegetations of an unhealthy sore.*"

That I am warranted in applying the term ulceration even to a mere abrasion, the result, not of physical violence, but of inflammation and of morbid vital action, must be evident to all who are acquainted with the classical literature of the profession. "Ulceration," says Samuel Cooper, "is the process by which *sores* or ulcers are produced in animal bodies." J. L. Petit defines an ulceration, or ulcer, "as a solution of continuity, from which is secreted pus, or a puriform, sanious, or other matter." Boyer states, that "an ulceration is a solution of continuity of the soft parts, more or less ancient, accompanied by a purulent secretion, and kept up by some local or internal cause." Any of these definitions apply quite as truly to a mere abrasion or excoriation, secreting pus or sanies, as to the chronic excavated *cutaneous* ulcer, which Dr. Tyler Smith most unaccountably expects to find on the cervix uteri.

Indeed, it is with extreme surprise that I find Dr. Tyler Smith saying, that to be able to apply the term ulceration to the cervix uteri, "we must look for a solution of continuity with a secreting surface, separated from the healthy structures, having defined edges, everted or inverted,— for an ulcer, in fact, (query, a cutaneous ulcer ?) in the common pathological meaning of the term." Had not Dr Smith commenced by stating that he is in the habit of using the speculum, I should be inclined to think that he was reasoning from analogy only ; for the fact is, and he ought to know it, if his opinions are the result of practical experience, that the form of ulcers thus described is scarcely ever met with on the neck of the uterus, except as the result of syphilitic chancre or of corroding ulcer. Owing to the tenuity of the mucous membrane lining the cervix and its cavity, the margin of an inflammatory ulceration is scarcely ever, if ever, either everted or inverted. So much is this the case, that it is generally most difficult to say where the ulceration finishes, until, by the application of the nitrate of silver, the margin of the sore, or the point where the epithelium finishes, be revealed. In my

work (see page 103) I have distinctly stated, and now repeat, that "whatever the character of an inflammatory ulceration of the cervix, the ulcerated surface is *never* excoriated; it is always on a level with or above the non-ulcerated tissues that limit it, and its margin never presents any abrupt induration. Owing to this circumstance, it is always impossible to determine by the touch the precise point at which the ulceration terminates."

Thus Dr. Tyler Smith's criticism of my position respecting the frequency of uterine ulceration is founded, on the one hand, on a frivolous negation of the term ulceration to abrasions and excoriations, these lesions being strictly and legitimately within the pale of all classical definitions of ulceration; and, on the other, on the establishment of a visionary ideal of uterine ulceration, drawn from chronic cutaneous ulcers of the leg, such sores or "ulcers" not being met with at all, in reality, on the cervix uteri.

In the course of the above argumentation I have not alluded to the French writers on uterine diseases, because I did not require their assistance to establish my position. I may now, however, add, that all who have written in France on the subject of uterine inflammation, have applied the word ulceration to the lesions to which I apply it. Some have called abrasions and excoriations, exulcerations, or granular ulcerations, which I have not thought proper to do; but this is the only difference between me and them. I have thus not only reason and pathology on my side, but also antecedents, and the example of my seniors—men of the first eminence and talent, such as Lisfranc, Gendrin, Jobert, Duparcque, etc.

Dr. Tyler Smith, in common with all those who are now *vainly* endeavouring to arrest the strong current of professional feeling towards a correct and sound uterine pathology, appears to think that I, and those who adopt my views, are discarding all constitutional treatment, and directing our attention solely to local lesions. This, however, is a most unwarranted "*petitio principii*." I would ask, where is the proof? Certainly not in my work on *Uterine Inflammation*, for a large portion of it is devoted to the minute and careful investigation and elucidation of general and constitutional symptoms, to which I strenuously and continually direct the attention of my readers. Nor have I observed any evidence, in the practice of those medical men, converts to the modern doctrines, with whom I came in contact, that constitutional means of treatment are by them neglected.

Dr. Tyler Smith lays great stress on the results of the post-mortem examinations at St. George's Hospital, which seem to me, on the contrary, to completely corroborate my views. He states, that only seven instances of ulceration of the cervix (excavated with distinct edges, I suppose) have been found on the post-mortem examination of the females who die annually in the hospital. In the same paragraph, however, he is obliged to confess, that slight abrasions, discolorations, and granulations, were frequently observed. The severe ulcerations alluded to appear to have been scrofulous sores, the result of the softening and emptying of tubercular masses, or malignant ulcerations.

I cannot conclude these remarks without entering my protest, in the most forcible and energetic manner, against a statement made by Dr. Tyler Smith, at the conclusion of his paper. He says:—"At the present time, a veritable uterine panic affects the upper and middle classes of society, and every woman, with the slightest ache or discharge, is not satisfied until the peccant organ has been ocularly inspected." I have no hesitation whatever in stating, that this assertion is a libel on our countrywomen, which, I trust, has only escaped from Dr. Smith in the hurry of composition. The change that has taken place, in the arguments brought forward by those who adhere to the prejudices and errors of days which we shall soon be able, I firmly believe, to call past, is truly remarkable. Five years ago, when I published the first edition of my work, I was greeted by the observation, that Englishwomen were too modest and reserved to submit to physical examination, and that I

should only destroy my professional prospects by advancing views which required it. Now, however, that Englishwomen suffering under uterine disease are beginning to become aware that there is relief to be found, and that they need no longer be handed from practitioner to practitioner in a vain search after health ; now that they show themselves willing to control agony of mind and pain of body, for the sake often of those who are dear to them, an odious accusation is thrown in their teeth, and they are told that they are ready, nay, *anxious*, to submit to uterine examinations, nearly without a cause or pretext. I can only say, that I meet with *no such females*, either in the higher or the lower ranks of my countrywomen, and that I blush for those who thus asperse them.

MANIA CO-EXISTING WITH UTERINE DISEASE.

Dr. Lever narrates (*Guy's Hospital Reports*, vol. ii, *Second Series*, p. 32), two cases illustrative of the following propositions:

1. Mania developing itself in the female, is sometimes associated with, and depends upon organic disease and irritation of the sexual organs.
2. Unless remedial measures be applied to relieve such disease or irritation, the insanity will be permanent.
3. In selecting the proper treatment, attention must be specially directed to the nature of the local disease.
4. In most cases, there is a diminution or cessation of the catamenial flux.
5. At the close of the treatment, counter-irritation in the neighbourhood of the sacrum is a valuable auxiliary.
6. By pursuing this plan of treatment, before the symptoms of insanity become confirmed, in many cases, it will be attended by success.

EXPLOSION OF A CYST OF THE CERVIX UTERI UNDER CAUTERIZATION.

A woman, aged 23, the mother of two children, had, on the anterior lips of of the os uteri, a sessile tumour, of the size of a small nut, firm, elastic, not fluctuating, not tender to the touch, and having the same colour as the surrounding parts. After various measures had been fruitlessly tried, it was resolved by MM. Marjolin and Melier to apply the actual cautery. M. Melier applied the iron at a white heat, when the tumour burst with a loud report, showing its cystic character. A stringy fluid, resembling white of egg, exuded. The patient regained her health, which had been very bad since the tumour appeared, from the pain in the hypogastrium, loins, and vulva.]*Mem. de la Société de Chirurgie*, t. i , p. 293.]

REPORTS OF SOCIETIES.

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 23, 1850.

Edward William Murphy, M.D., President, in the Chair.

Foreign body in Œsophagus, simulating Disease of the Brain. Dr. Routh related the following case. It was that of a young lad, aged about 13, who had suffered from head symptoms more or less since his birth. Indeed, he had had acute hydrocephalus when an infant. The symptom which chiefly annoyed him was intense headache, coming on at irregular periods. Lately, however, he had been much better in this respect. On the 24th of December last, it appears that he was playing with some of his comrades, having in his mouth a piece of a spectacle frame made of bone. The piece was right angled, consisting of about one-quarter of the ring for the glass, with the adjoining portion, about one inch in length, at one end of which was a piece of metal remaining, originally the rivet. This, in a moment when he was not aware, he swallowed. He stated at the time, that he felt as if something was sticking low down in his throat, but the feeling soon disappeared, and he thought nothing more of it. Three days afterwards, hæmoptysis came on. The blood brought up was small in quantity, about a teaspoonful, intermixed with frothy sputa; the latter continued for several days afterwards, streaked with blood. At the same time, he complained of a dull heavy pain deep in the thorax, beneath the upper part of the ensiform cartilage, with occasionally a pricking sensation in the neighbourhood of the larynx. The head symptoms now again developed themselves with increased severity. There was intense headache, increased in the recumbent position, sleeplessness, loss of memory, and occasional delirium, especially at night. This was accompanied with a great feeling of weakness, and he was unable to stand upon his feet. The pupils were dilated, the face flushed, the pulse much accelerated; but there was no vomiting, and the intellect was ordinarily, except during delirium, quite clear. There was slight bronchitis, indicated by occasional sonorous and sibilant rhonchi, and large crepitation. The right clavicle was duller on percussion than the left, and the respiration was weak. Above the clavicle and over the supra-spinous fossa, the reverse was the case, and the expiration on the left side was also proportionally too loud. The difference in dulness was, however, by no means well marked. No abnormal sounds were heard over the trachea and larynx, nor was his voice affected. Towards the beginning of January, Dr. Routh first saw him, when he was enabled to make the above observations. Considering the case as one of tubercle of the brain, probably complicated with some acute attack and with perhaps incipient phthisis, he ordered him to be cupped to ʒvi, to have a blister applied the next day to the nape of the neck, and to take some drastic purgatives. Two other blisters were subsequently applied. The urine was natural in colour, sp. gr. 1016, acid, with some excess of phosphates; no albumen. Head to be shaved, and cold lotions applied. Under this treatment, he so far recovered in about seven or eight days as to be able to sit up. The cough had disappeared. Pulse about 90. The head symptoms were almost quite gone, he was able to walk, and the only disagreeable feeling he complained of, was unusual warmth, so that he could not bear a fire in his room. After a few days, he became again delirious, and complained of intense pain in the hepatic region, which was also tender on touch. He was now cupped on this part to ʒiv, and a mercurial purge was given. He was again able to walk about, and seemed comparatively well in a couple of days, and continued so. On the 22nd of February, he became again

delirious, and suddenly very faint and sick. This was soon followed by the vomiting of a large quantity of pus and blood (almost 0j.), in the midst of which was the piece of bone before described. The next day, however, all the symptoms had disappeared, and excepting a feeling of weakness, he stated that he felt quite well. Dr. Routh concluded from the above history, that the foreign body must have lodged somewhere in the œsophagus, and not fallen in the larynx. The body was too large for this: moreover, it could not have been lodged in or near it, else more urgent laryngeal symptoms would have been produced. Had it passed into the stomach, it would have been in part digested; and in this case Dr. Routh was at a loss to understand, how and where this large quantity of pus should have been produced, and retained for so long a period in the stomach. The case was interesting as an eccentric simulation, by a foreign body in the œsophagus, of symptoms completely resembling local and cerebral disease; the imitation being also rendered more perfect by the relief afforded by the treatment.

Connexion between Gout and Rheumatism. By Dr. A. B. Garrod. Many physicians consider Gout and Rheumatism as diseases so closely allied, as to be merely varieties of the same; others, as differing essentially from each other; while a third set believe, that although the well-marked attacks of acute Gout differ widely from those of acute Rheumatism, yet the two diseases may, as it were, imperceptibly merge into each other, so that, in a given case, it may be impossible to diagnose between them. The object of this paper was to point out the differential diagnosis.

Gout is a disease of advanced age; rheumatism, of youth. Gout is more common among men; rheumatism affects both sexes alike. Gout, at first at least, attacks the plethoric, and those who live high; rheumatism, generally, the debilitated from any causes. Gout is frequently hereditary; rheumatism, if at all so, incomparably less so than gout. The exciting causes also differ. Gout is induced by high living, certain indigestible food, or by local injury in those strongly predisposed; cold is the principal exciting cause of rheumatism. The rich are more subject to gout; the poor to rheumatism. Gout frequently presents premonitory symptoms, affecting the digestive organs, which is not the case in rheumatism. Gout attacks the small joints; rheumatism, the larger. In gout, one joint, generally, only is affected; in rheumatism, many. In gout of long standing, the large joints may be attacked, and also more than one; sometimes, again, in rheumatism, the smaller joints are involved. In both diseases, the affection of the joints is accompanied by pain, redness, and swelling; but in gout, the pain is generally more severe, and the redness and swelling greater than in rheumatism. In gout, we have œdema and subsequent desquamation, which do not occur in rheumatism. The fever in gout is proportioned to the local inflammation; but it greatly exceeds it in rheumatism, and there is frequently profuse sweating, of an acid character. Metastasis rarely occurs in acute gout, and when it does, the brain or stomach suffers, the heart seldom or never; in rheumatism, the heart is frequently inflamed, and the secondary affection becomes the most important. Chronic rheumatism is more frequent than chronic gout; the latter is frequently accompanied by the secretion of a milky fluid, which constitutes chalk-stones or tophaceous deposits. Their composition is peculiar, consisting almost entirely of urate of soda, and sometimes phosphate and carbonate of lime. In the fluid state, the needle-like crystals of the urate of soda can be readily detected under the microscope. They are met with on the joints of the hands and feet, which they distort, and even dislocate, also in and around the sheaths of tendons, and even in the cancellous structure of the heads of the bones. (Specimens, one weighing two ounces when fresh, were exhibited.) Colchicum possesses an almost magic power in relieving the pain in gout, but is not attended with such marked benefit in the acute form of rheumatism. There are,

however, a class of cases, in which, even with the utmost care, the diagnosis cannot always be made. These are called rheumatic gout; and it would seem either that the patient suffered from both diseases at once, or that the two merged into one. Dr. Garrod considered it a matter of great interest to ascertain the true nature of these cases, and to find out whether or not cases of true gout and those of rheumatism may not present similar, and almost identical symptoms, and yet in their real nature be quite distinct. In a paper read before the Medical and Chirurgical Society, Dr. Garrod had proved the existence of uric acid in the blood; in the healthy fluid, traces of it only could be found, but in pure gout it was greatly increased, so that from 1000 grains of serum it could be crystallized and weighed. It could also be procured in the form of urate of soda. This was not the case in acute rheumatism, and in that disease no more uric acid was found than in the healthy fluid. This, then, formed a marked difference between the two diseases. Uric acid, in Dr. Garrod's experiments, was abundant in the blood in cases presenting symptoms of true gout, deficient in those of well-marked rheumatism. This he had lately used as a test of the two diseases. A labourer being admitted into the hospital with a complaint in one hand, which had been previously treated as rheumatism, but presenting characters of gout, as Dr. Garrod supposed, he directed a small quantity of blood to be drawn, and discovered uric acid in abundance. The man afterwards said that he had had a similar attack in the toes, and that he could at any time bring on an attack by drinking beer freely. The plan for detecting uric acid in the blood, detailed in the paper read before the Medical and Chirurgical Society, being very difficult, Dr. Garrod recommended the following, as being more simple: He takes a small quantity of blood, say from half an ounce to an ounce, in a wide tube or small glass, and allows it to remain for some hours, to separate into clot and serum. The serum is then decanted, and from half a drachm to a drachm put on a watch glass, then acidulated with five minims of acetic acid, and a fibre of hemp from a piece of linen or tow introduced. In about forty-eight hours, when the serum has become solid from evaporation, if uric acid be present, the fibre will be covered with crystals of uric acid in the form of rhombs: an idea of the amount of uric acid present may be obtained from the number of crystals. (A drawing of the fibre covered with the crystals was exhibited.) That these crystals are uric acid, can be proved by adding a little water, when, by care, the fibre can be removed with a small pair of forceps, with the crystals adhering to it. Nitric acid and ammonia will at once determine their nature, by the production of the murexide or purpurate of ammonia. Dr. Garrod then mentioned, as an indication of gout, the presence of chalk-deposits in the ear, a sign he has often observed. Sir C. Scudamore gives the tophaceous deposits as being only ten per cent., but Dr. Garrod had met with them in the ear much more frequently,—so much so, as in chronic cases to form a valuable sign of diagnosis. He had himself often diagnosed the disease from this mark alone, and found his opinion confirmed afterwards by the discovery of uric acid in the blood. In many chronic cases of gout, the condition of the urine will aid the diagnosis; and when there are tophaceous deposits, the kidneys appear to have lost the power of excreting uric acid, so that the urine is at all times free from lithic deposits. When the chalk-stones are forming very freely, he had often found that not 1-100th of a grain of uric acid was eliminated in the urine in the twenty-four hours. At the same time, the urine may present an acid reaction.

Dr. Snow regretted that Dr. Garrod had not explained the *reason* why the kidneys did not separate the lithic acid from the blood, and thus prevent a fit of the gout. Dr. Garrod had said, that the kidneys did not appear able to effect this elimination; but he (Dr. Snow) thought that this inability did not arise from mere local disease of the kidney, but that some constitutional cause was present. Might not the lithic acid remain in the circulation, from

the want of ammonia to combine with it? Phosphate of ammonia was a valuable medicine in the treatment of gout. Might it not act by the ammonia combining with the lithic acid, and producing lithate of ammonia? Colchicum, in acute rheumatism, was often useful, when given freely, in cases which had been called sthenic. In the country, among strong labouring men, he had seen half a drachm of the wine of colchicum seeds given every four hours, until it produced violent catharsis and vomiting, attended by much depression. A remission of the symptoms followed these effects.

Dr. Ross, in his own person, had found no good effects from colchicum in the first attack of gout, though he persevered in its use for three weeks. On adding the bicarbonate of potash and morphia to the remedy, however, it immediately afforded him relief. In his case there was no uric acid in the urine, the specific gravity of which was about 1012. How did the uric acid get out of the blood during the attack? He had found much benefit from a local liniment, consisting of two drachms of distilled vinegar, two ounces of colchicum wine, and eight grains of morphia, applied by means of a piece of lint to the affected part.

Dr. Lankester, Dr. Daniell, and others addressed the Society; after which Dr. Garrod replied to the criticisms of the various speakers.

Saturday, March 2, 1850.

Edward William Murphy, M.D., President, in the Chair.

Acute Synovitis of the Knee-joint in an Infant during Dentition. By Mr. Gordon Bailey. The subject of this case came under the notice of Mr. Gordon Bailey on the 8th of January. There was great thirst, heat of head, irritable bowels, hot skin, and the usual precursors of teething. These symptoms were succeeded by drowsiness, and a tendency to sickness of the stomach. The child was apparently very much out of health; its skin was pale and flabby; the folds between the thighs and vulvæ were very much chafed; its alvine secretions were dark and fetid, and it was very irritable. The bowels were opened by small doses of mercury with chalk and rhubarb; the gums were freely divided; the head was ordered to be frequently sponged with vinegar and cold water, and the body was placed in a warm bath, and some sudorific medicine was prescribed. The child was relieved by this treatment, and continued to improve for a few days, when the symptoms again supervened: the gums were much swollen, and the child was very irritable. The gum-lancet was again used. Small doses of sulphate of magnesia and nitrate of potash were prescribed, which had the effect of bringing away some watery stools, after which the child became more lively. On the 12th of January, the left knee began to swell: it was large and white on the following day, and the integuments presented the shining appearance of phlegmasia dolens, without, however, any of the excessive degree of pain attending that affection. The child was exposed to no accident or cold, and had had great care bestowed on it by its parents and nurse. The brother of this child is also very delicate, cutting his teeth with great disturbance to the system, such as congestion of the brain, enlargement of the cervical glands, etc. The limb was ordered to be kept quiet, and to be fomented frequently with decoction of poppies, etc. The bowels were opened, and the child supported by isinglass dissolved in milk. This palliative treatment was judged most suitable from the weak state of the child, and the swelling of the knee was looked on as constitutional, having for its exciting cause the process of painful dentition in a strumous habit. Mr. Hancock, who saw this case in consultation, also concurred in this view; and it was agreed on to procure absorption of the fluid, if possible, by the application of tincture of iodine in the neighbourhood of the joint, and also the internal exhibition of iodide of potassium. This treatment was continued for nearly a week. In the interim the child cut two teeth, when the irritation became much less: however, the limb did not appear to get smaller. Fluctuation became more dis-

tinct; and a red spot, at the side of the joint where the integuments were thin and soft, showed were the matter would soon escape. After this spot had been poulticed for two or three days, an incision was made, and about two ounces of pus flowed out. The discharge continued some days. The limb was placed in a moulded gutta percha splint; water-dressing was substituted for the poultice, and the use of cod liver oil commenced. The discharge ceased after seven or eight days; the four incisors came up, and, with the latter, all the restlessness and sympathetic disturbance ceased; the knee has assumed its former size and shape, and there appears to be no stiffness or impediment to motion, for the little patient flings the legs about as if nothing had occurred.

This case derives its chief interest from the fact, that it occurred in so young a subject. Synovitis in young children, as a complication of dentition, is not described in any of the works on Diseases of Children; and Sir B. Brodie, one of the highest authorities on the subject of Diseases of the Joints, in speaking of the inflammation which begins in the synovial membrane itself, and is not communicated to it from other textures, says, that "the disease very seldom attacks young children, but is frequent in adult persons."

Pathology and Treatment of Delirium Tremens. By Dr. James Bird. [This paper is embodied in the Memoir published at p. 419 of last number.]

Saturday, March 9, 1850.

Edward William Murphy, M.D., President, in the Chair.

Death from Hæmorrhage into the Bladder. Dr. Wardell exhibited a diseased bladder, with the left ureter and kidney attached. The deceased was a patient of Dr. B. Smith of Kensington, by whom he was requested to make an examination of the body. George Emmerton, a farm labourer, 73 years of age, of middle stature, and well-developed muscular system for his time of life, but pale and sunken in the features, complained, on the 26th of January, of frequent and very painful desire to micturate, followed by the passing of only a few drops, chiefly of blood. The catheter passed without difficulty, and, on entering the bladder, it felt as if penetrating a loose and easily lacerable coagulum, or a thick viscid substance. No fluid escaped, except a little blood. Pulse 80, weak, and the countenance was blanched. In March last, the deceased had injured the left hypogastric region, by running forcibly against the corner of a low door. During the six weeks previous to his decease, the urine was mixed with varying quantities of blood, which increased in quantity for the last ten days of his life. He sought no medical advice previous to calling in Dr. Smith, on the 26th. Three weeks before his death, he had been an inmate of the Middlesex Hospital, for hydrocele. He was tapped, and speedily recovered. On the morning of the 27th, the catheter was again passed, and it still seemed to pass through some substance offering a slight resistance. Some fluid dribbled away, consisting of blood and urine. He complained of no pain, nor desire to micturate. The pulse was weaker, and the general symptoms of a more alarming character. He took, every three hours, doses of lead, opium, and acetic acid. In the evening, he was much in the same state. The following morning (28th) he was reported to have slept continuously during the night. The bowels had been freely opened. The pulse was smaller and quicker. Towards morning he had a fit, apparently of an epileptic character. During the day he had several fits of a similar nature; and in most of these, the facial twitchings were very considerable.

The *post-mortem* inspection was made fifty hours after death. The bladder was enormously distended, and its colour of a dark pinkish hue, evidently imparted by its contents. On introducing the catheter, no fluid passed; consequently a puncture was made high up in the lateral aspect of the organ, when a pint of clear urine was removed. Another pint of fluid was thus

taken away, but this partly consisted of blood. Other four and a half pints of blood, partly fluid and partly in dark, easily-broken coagula, were removed. On carefully introducing the hand, a soft, irregular, roughened surface was felt, extending over a considerable space on the left side, and near the sphincter vesicæ. On further exploration, a small orifice, admitting the little finger, could be felt, opening into a cavity, apparently of sufficient size to admit a small orange. On slight pressure, two or three ounces of blood flowed from this orifice. By turning the viscera aside, both ureters were brought into view. The left was tensely distended, and nearly as thick as the little finger; a small slit was made near its union with the kidney, and the contained fluid was found to consist of limpid urine. A gum catheter was straightened, and made, without any obstruction, to pass out at the uretral orifice into the bladder. The right ureter was not at all distended. The bladder was then removed; and, on its being freely laid open, extensive disease was manifest, consisting of considerable thickening, at some places to the extent of seven or eight lines, and presenting an ulcerated surface, not covered with much purulent matter. On manipulation, no very notable hardness was felt, but there was induration in some parts. The sacculated cavity spoken of, was found to have a lining membrane possessing all the characteristics of the bladder when in a healthy condition. The prostrate gland was healthy. On careful examination of the diseased mass, no bleeding orifices could be traced. The left kidney was much smaller than the right. On being cut open, its pelvis was distended with clear urine. The calices and infundibula were considerably dilated; the cortical and tubular substance greatly absorbed; the papillæ ill-defined. Right kidney perfectly healthy, and of the normal size.

On first examining the morbid product, from the considerable thickening of the bladder at the seat of ulceration, the blueish-red, roughened surface, the induration felt in several places, the streaks of purulent matter, and other features, in no slight degree simulating carcinoma,—it was not unreasonable to deem it a true instance of ulceration of the viscus. There were certain negative facts opposing such opinion, especially the unaccompaniment of general cachexia, the absence of pain throughout the progress of the complaint, the healthy condition of the adjacent organs, some of which are almost invariably cancerous when carcinoma of the bladder exists, especially the rectum, the prostrate gland, and vesiculæ seminales in males, and uterus in females. Sometimes the sub-mucous tissue of the vesical parietes at the fundus, or near the neck, was the first seat of the malignant change, and the neighbouring organs were found of normal character; but such instances are very rare, and constituted mere exceptions to a general rule. The next particular was the orifice and cavity, spoken of in the account of the *post-mortem*. On laying it open, the lining membrane of this sacculated pouch was found quite healthy. A condition of the viscus resembling the one now seen on the table, had, by some authors, been termed vesical hernia; by others, a diverticulum. A diverticulum might be congenital, or the result of disease. The manner in which this had been formed was undoubtedly by disease; by the apposition and ultimate union of the ulcerated edges, which had gathered up a fold of the vesical wall, and the orifice had been kept patulous by the passage of the urine to and from the bladder. On placing portions of the diseased mass under the microscope, none of the caudate, nucleated cells, so indicative of carcinoma, could be detected; and Mr. Bowman could not detect the true cancerous cells. Dr. Wardell, therefore, considered the specimen as simple hypertrophous ulceration, where the thickening, from long-continued disease, had become considerable. With regard to the extent of hæmorrhage, a large quantity of blood had been poured out from inconsiderable vessels: on careful examination, it was found, that none of the larger branches had been eroded.

Connexion between Uterine and Ovarian Disease. By Dr. Tilt. [This paper was published in our number for April, p. 347.]

Dr. Henry Bennet had listened with much pleasure to Dr. Tilt's paper, the great merit of which consisted in its placing in a very strong light the pathological connexion that really existed between the uterus and the ovaries. Inflammation, no doubt, often extended from the uterus to the ovaries, as he (Dr. H. B.) had shewn in his work on Uterine Inflammation; whilst in Ovarian Disease the uterus and its neck were so frequently also the seat of inflammation, that it was of the greatest importance to narrowly investigate the state of these latter organs. Indeed, he had repeatedly found, that by curing chronic disease of the uterus or cervix uteri, he had materially contributed to arrest morbid action in the ovaries. He did not, however, think that when inflammatory disease existed in the neck of the uterus alone, a similar morbid condition was often developed in the ovaries sympathetically or by metastasis. He thought that in these cases the ovaries were nearly always affected by "extension of tissue", that is, by its extension from the neck to the body of the uterus, and from thence to the lateral ligaments and ovaries. He would also remind his hearers, that pain in the ovaries and their vicinity, as also tenderness on pressure, were nearly invariably characteristic of inflammatory ulcerations of the neck of the uterus, and *not* of acute or subacute ovaritis. Owing to some inexplicable cause, the pain produced by ulceration of the neck of the uterus was very seldom experienced in the real seat of the disease, but at a distance, in the ovarian regions. The pains appeared with the ulceration, lasted for years along with it, and disappeared with it, scarcely ever leaving behind any evidence of Ovarian Disease.

Dr. Snow Beck remarked, that he had looked for the erectile tissue said to exist in the cervix uteri, but had not been able to find it. With care and patience, it was easy to trace the layer of erectile tissue along the side of the vagina, and to follow it to its termination at the upper part, but he had not been able to discover any erectile tissue in the cervix uteri. Referring to the pain which existed a little above the inguinal region in affections of the cervix uteri, which pain had been called ovarian, he considered this a most mischievous appellation, as it led to erroneous views in the pathology and treatment of the diseases of which it was an index. The pain referred to was a painful affection of the ilio-inguinal nerve. And that this was the case was proved, 1. By the course of the pain; for although it is described as located at the lower side of the abdomen, yet on careful examination it will be found to commence in the lumbar region, pass round a little above the crista of the ilium, and thence downwards and forwards to the inguinal region; 2. By the situation: as on exercising gentle pressure with the hand, the patient informs you that the pain is not deep in the pelvis, but very near to the hand; whilst pinching the integuments gives no inconvenience, and shows that it is not situated there; 3. By direct experiment; as by placing the fingers on the cervix uteri and exercising gentle pressure, the pain is increased along the whole course of the nerve, but especially at its distribution on the lower part of the abdomen, or where the pain is chiefly complained of.

These facts were readily understood by a reference to the anatomy of the uterus. We must remember, that the uterus is supplied by tubular nervous fibres, or branches from the spinal nerves, as well as by gelatinous nervous fibres derived from the sympathetic nervous system; and that the branches of the spinal nerves—the tubular fibres—are derived from the lumbar plexus, pass to the lumbar ganglia, from thence to the hypogastric plexus, and finally, in company with the sympathetic fibres, reach the uterus. On any affection irritating these fibres, the irritation was carried upwards to the lumbar plexus, and thence reflected in the form of pain along the different nerves derived from this plexus, *i. e.* upon the lower part of the abdomen, over the hips, and along the muscles on the inner part of the thighs. The situations of these reflected pains were most important as a means of diagnosis in disease. For instance, the pain in the lumbar region,

and along the nerves derived from the lumbar plexus, indicated an affection of the uterus, the pain in the sacrum and along the nerves derived from the sacral plexus, indicated an affection of the vagina and not of the uterus, as has been so generally stated. Nay, further, the portion of vagina affected was exactly indicated by the seat of the pain in the sacrum. Affections of the upper part of the vagina causing pain in the upper part of the sacrum, and affections of the lower part, caused pain in the lower part of the sacrum. These facts ought to cause some to hesitate, before they attributed everything to affections of the neck of the uterus, and to pause on the improper haste with which they submitted females to instrumental examination without sufficient reason.

That inflammation of the ovaries and uterus sometimes existed together, was a fact which could not be denied; but considering the numerous cases of inflammation of the uterus which occurred in London during the year, and the rarity with which they were met with together, he considered it must be a very exceptional case. And even then, it was a question whether it was not a mere coincidence, without any connexion existing between the two.

Dr. Snow Beck stated, in reply to Dr. Sibson, that the ovaries were chiefly supplied by nerves from the renal plexus, which passed down in company with the spermatic artery. Sometimes, however, a branch passed from the uterus to the ovaries. The uterus was chiefly supplied with nerves from the hypogastric plexus, which plexus was composed of sympathetic nerves, and branches of spinal nerves derived from the lumbar plexus.

Mr. Nunn said, that the ovaries were supplied with branches of the sympathetic, from the sacral ganglia accompanying the uterine artery: and *not only* by offshoots from the renal plexus. He thought that Dr. S. Beck was in error, when he said that pain extending down the thigh was indicative of vaginal and not of uterine disease; when present in uterine disease, it depended upon the uterine nerves being connected with the sacral plexus. The sacral ganglia were connected on the one hand with the uterus, and on the other with the sacral spinal nerves.

Dr. Snow Beck asked, how it happened that the hypogastric plexus left the uterus and pursued a separate course round the pelvis, if, as Mr. Nunn stated, the sympathetic nerves always accompanied the arteries?

Saturday, March 16, 1850.

Edward W. Murphy, M.D., President, in the Chair.

On Diseases of the Nervous System. By Dr. Semple. [This paper is published at p. 448 of our number for May.] Dr. Sibson, Dr. R. Chambers, Dr. Daniell, Dr. Webster, Dr. Snow, Mr. Hunt, and Mr. Wing, made speeches more or less bearing upon Dr. Semple's paper.

Saturday, March 23, 1850.

Edward W. Murphy, M.D., President, in the Chair.

The Entrance of Air by the Open Mouths of the Uterine Veins, Considered as a Cause of Danger and Death after Parturition. By Dr. Cormack. The paper consisted of three parts:—1. The various effects caused by the entrance of air into the veins, and the appearances found on dissection. 2. Statement of facts, proving that the entrance of air by the open mouths of the uterine veins may cause dangerous symptoms, and even death. 3. Suggestions as to the prevention and treatment of such accidents after parturition; with remarks upon the precautions required in injecting the uterus after delivery for uterine hæmorrhage. The opinion, that the entrance of air into the uterine veins might be a source of danger and death after parturition, had been enunciated by Legallois, in 1829, and subsequently by Ollivier; it had likewise been supported by Dr. Cormack, in his *Graduation Thesis*, published at Edinburgh in 1837. Dr. Cormack had attended cases, in which air had been drawn into the womb after delivery by the sudden

relaxation of the organ; and occurrences of this kind, he supposed, must be frequent. Dr. Cormack quoted Dr. Meigs' very graphic description of the way in which air was often drawn in, and then expelled with noise by the womb after delivery. Dr. Cormack wished to prove, that if any impediment existed to prevent the exit of the air which had been drawn in, it must, when the uterus acted, be thrown into the large orifices of the uterine veins, provided they were not secured by coagula, or by the apposition of their parietes from contraction of the organ. He also showed, by anatomical facts, and by referring to the experiments made by Dance, that the communication between the cavity of the womb and the current of blood in the vena cava inferior, was direct and easy, and that air, once introduced into the uterine veins, must soon be carried to the right auricle of the heart; there, if in sufficient quantity, to cause frothing of blood, aeriform distention of the right side of the heart, obstruction of the pulmonary artery, and congestion of the pulmonary capillaries. Cases of this kind had actually taken place. One had been published by Lionet, and another by Wintrich. A case had also been published by Dr. Bessems, in which air had been thrown accidentally into the uterine veins, when injecting the uterus to arrest hæmorrhage. The woman died suddenly with symptoms of suffocation, and the right side of the heart was found distended with air. Dr. Cormack showed, by a detail of experiments which he had performed, and also by cases, that the entrance of air into the veins, even in considerable quantity, was not necessarily fatal. A case, communicated by Sir B. C. Brodie to Dr. Cormack, illustrated this fact. The general treatment for uterine hæmorrhage, by inducing contraction of the uterus, also plugging, would be the means by which the entrance of air into the uterine veins would be prevented. Should the accident occur, and the circulation and respiration become affected, and asphyxia be imminent, it would be necessary to unload the heart and pulmonary capillaries, by taking blood, following up the advantage so gained, by aspersion of the face with cold water, the application of stimulating embrocations, sinapisms, etc., and the internal use of various stimuli. Dr. Cormack stated, that in a case which he had watched for some hours after the accidental entrance of a large quantity of air into one of the veins of the neck, no advantage was got from stimuli, till the heart had been somewhat relieved by venesection. This is the case which occurred at Barnes, in 1848, and an account of the inquest on which appeared at the time in the *Lancet*. In some cases, little or no treatment might be required. If the air was in small quantity it would be absorbed, if the patient survived a sufficient time, and no bad consequences might ensue. At the same time, in some animals experimented on, Dr. Cormack had found, that though they recovered from the immediate danger, they ultimately died from pneumonia. The cases mentioned by Dr. Simpson, in a communication to the late Dr. John Reid, and published in his collected Memoirs, were examined, and stated to belong to a different class from those of Bessems, Lionet, and Wintrich. Letters were read from Dr. Collins, of Dublin, and from Dr. Lever, of London, to Dr. Cormack. The former knew of no cases of death from air entering the uterine veins; the latter had seen three.

Saturday, March 30, 1850.

Edward Wm. Murphy, M.D., President, in the Chair.

On Eclampsia Nutans, or Salaam Convulsion. By Dr. Willshire. The author stated, in his introduction, that of this peculiar malady of children, only four well-authenticated and detailed cases were on record;[1] and for these, and our chief information concerning the affection, we were indebted to Mr. Newnham, of Farnham.[2] He (Dr. Willshire) intended to add another

[1] Two additional interesting cases, detailed by Dr. Faber of Wartenberg, will be found at p. 569 of this number.

[2] Mr. Newnham's paper appeared in Dr. Clay's *Obstetric Record*, a periodical which has been discontinued.

case to the above; it had occurred in his practice at the Infirmary for Children, in an infant six months old. The primary, essential, or pathognomonic sign of the disease in question, is a peculiar "bowing" forward and downward of the head, sometimes almost to touch the knees: this progressively increases in frequency and severity, until the motion of the head becomes a quick "nodding," repeated even as many as one hundred and forty times during the day, as in one of Mr. Newnham's cases, and in his own, fifty times. Sooner or later, this so-called "Salaam Convulsion" becomes complicated with more general automatic movements, sometimes of the epileptiform, at other times of the tetanoid variety or type. The more severe attacks of the "bowings" are generally preceded by sleep; and it has been noticed that their severity has been in proportion to the depth and intensity of that sleep. As the disease progresses, paralysis occurs either in the form of paraplegia or hemiplegia, and, finally, complete mental imbecility or idiocy follows, or so severe a shattering of the intellectual element, that it is recovered from but slowly and with great difficulty. The case which had occurred to the author of the paper differed in some important particulars, however, from those related by Mr. Newnham. It agreed in the following points, viz.: in the peculiar movement of the head; in that movement being observed to occur immediately after sleep, and never, it was believed, during the somnolent condition; in that movement becoming allied, during the progress of the malady, with an intercurrent form of general convulsive or automatic action: in the marked effect which appeared to be produced upon the intellectual powers. It differed in the following particulars, viz.: in not being accompanied with paralysis in any form; in not being followed, so far as could be judged, by permanent injury to the intellectual element, or the occurrence of a fatal result; and in being apparently influenced by what seemed to be a right mode of treatment. The therapeutic means chiefly put in force were, the application of blisters behind the ears, keeping the bowels relaxed by castor oil, and the internal administration of the iodide of potassium and the disulphate of quinine. After entering, with some detail, into the pathology of the disease, and its relation to presumable centric and excentric causes in respect to the nervous centres and the peripheral nervous system, the author stated, that he considered it probable, that the disease was purely centric in its origin, having its first seat in the sensorium, or in those important parts placed between what are termed, by Mr. Solly, the "hemispheric ganglia" and the top of the spinal chord; and that afterwards the lower, or non-sensorial, portion of the spinal apparatus was affected, as proved by the general automatic movements being, in some cases, of a decided tetanoid character. In others, these movements were distinctly epileptiform; and, moreover, hemiplegia had followed; the former circumstance still further indicating, as the seat of mischief, the assemblage of ganglionic centres between the cerebrum and spinal chord; whilst the latter and the supervening affection, or obliteration, of the intellectual powers, appeared to prove the secondary involvement of the great "hemispheric lobes." In one of the cases alluded to by Mr. Newnham, there was reason for believing that the hemispheres, or lateral lobes of the cerebellum, were specially included in the cycle of lesional disturbance. As to what may be the nature of this disturbance, wheresoever it may be primitively situated, and whatsoever it may secondarily draw within its sphere, much doubt must exist, seeing that no post-mortem investigations had hitherto been made. Mr. Newnham inclined to the opinion, that the essential character of the malady was inflammatory action, of a weak and strumous nature, of the membranes investing the medulla oblongata, afterwards extending to other parts. Dr. W. thought that it may be a change in the circulation of the minute vessels, and this of a scrofulous character; following upon which change, there occur red alterations of structures, deposits upon or in them, and conditions in the nutritive formation and reparation of the nervous centres, not only little compatible with

the performance of their normal actions, but, in truth, causative of others intensely abnormal in their character.

SATURDAY, APRIL 6, 1850.

EDWARD WILLIAM MURPHY, M.D., PRESIDENT, IN THE CHAIR.

PRESUMED FREQUENCY OF ULCERATION OF THE OS AND CERVIX UTERI. By TYLER SMITH, M.D. [We give the whole of this paper, and also Dr. Bennet's reply at p. 587, because the subjects discussed are at present exciting much controversy and comment in London. Our opinions regarding the speculum, will be found at p. 650 and 1031 of vol. for 1849.] "MR. WHITEHEAD, of Manchester, in his work on Abortion and Sterility, states, that of 2,000 women whose cases he investigated, on their application to the Manchester Lying-in Hospital, 1,116 had the whites at the time the inquiry was made, and a considerable number more had suffered under a similar ailment at some former period. In 936, or eighty-three per cent., the discharge bore undoubted evidence of the presence of pus, or of sanies; and in some instances, it was more or less mixed with blood.' Mr. Whitehead traces these discharges to 'disease of the lower part of the uterus, this disease being found to exist in almost every instance;' and he further declares, that 'this lesion of structure constitutes the true pathological seat of leucorrhœa, and of all its associated phenomena.'

"DR. HENRY BENNET states, in his recent work on 'Inflammation of the Uterus and its Appendages, and on Ulceration and Induration of the Neck of the Uterus', that of three hundred cases presenting 'uterine symptoms', among the patients of the Western Dispensary, he found that '243 were suffering from decided inflammatory disease of the cervix, or its cavity; and that in 222 ulceration was present.' Thus, in Mr. Whitehead's cases, in 936 out of 1116 cases of leucorrhœa, the discharge was purulent or ulcerative; and in Dr. Henry Bennet's cases, 222 out of 300, or more than two-thirds, were also suffering from uterine ulceration. Dr. Bennet states, that the same proportions are preserved in the cases he has treated in private practice.

"It is well known that this is widely at variance with the experience of previous observers in this country. Does this discrepancy arise from the superior modes of investigation adopted by the authors I have quoted? or, does it happen from some misapprehension as to what really constitutes ulceration of the Os and Cervix Uteri? Is there simply some mistake about the nature of ulceration; or is the difference explained by the more general use of the speculum?

"Practising as a physician-accoucheur, I must get the same class of patients as those treated by Mr. Whitehead and by Dr. Bennet. I am in the habit of using the speculum in cases of obstinate leucorrhœa in married females, and I trust with a desire to observe truly and faithfully; but I do not myself find uterine ulceration—at least not what seems to me to warrant this term—so frequently as Dr. Bennet, Mr. Whitehead, and some other gentlemen who have written upon the subject, in leucorrhœal cases—purulent or muco-purulent. I find inflammation, engorgement, induration, excoriation, patches of aphthæ, epithelial abrasions, and granulations often enough, but very seldom what I could call ulceration, in non-malignant and non-syphilitic cases.

"The clearest description I can find of the so-called ulceration, is in Dr. Bennet's work (pages 102 and 103), which I take the liberty of extracting, and certain expressions in which I have italicised: it occurs under the heading—'*Inflammatory Ulceration.*—Inflammation may exist for years in the cervix and its cavity, without giving rise to any other anatomical changes than those which have been enumerated. This, however, is seldom the case. The mucous membrane lining these regions, and more especially that portion of it which is near the os, appears to be *peculiarly liable to take on ulcerative action.* Consequently, the existence of inflammation *in the great majority of instances* is soon followed by the manifestation of the ulcerative process.

Ulceration generally appears first round the os, and just within the cavity of the cervix. Many different forms or species of ulceration are described by continental writers, but, in my opinion, without necessity or advantage. An ulceration occupying the Cervix Uteri may present all the various modifications, which suppurating surfaces offer in any other part of the body, from the minute granulations of a slight abrasion, to the livid vegetations of an unhealthy sore; but these modifiations of the ulceration require in reality no division or classification.'

"'When an abrasion or excoriation only is present, the cervix is generally of a vivid red, and the granulations are often so minute, that it is at first difficult to ascertain whether the mucous membrane is abraded or merely congested, or to perceive the limit of the ulceration when once it has been ascertained to exist. The doubt, however, may be solved by lightly touching the suspected surface with the nitrate of silver. The abrasion immediately assumes a much whiter hue than the region which is merely congested, and its margin becomes well defined and evident. *An abraded or excoriated condition of the mucous surface is generally the form under which ulceration presents itself in the cavity of the cervix*, granulations of any size being seldom met with in this region.

"'In its more decided form, Ulceration of the Cervix Uteri is susceptible of presenting every possible variety. The granulations may be firm, of a vivid red hue, scarcely bleeding on pressure, or they may be large, fungous, livid, and bleeding profusely at the slightest touch. These fungous ulcerations are generally connected with torpor of the local circulation; when they are present, the congestion of the vagina and cervix is often very great, of a livid venous character, and the non-ulcerated surface of the cervix may present dilated varicose veins.'

"Now, this portrait, the general fidelity of which I admit, does not appear to me to warrant the profuse use of the term 'ulceration,' which in itself, and when applied to other parts of the body, has a definite and unmistakeable meaning. It cannot truly be said, that mere abrasions or excoriations caused by irritating leucorrhœal discharges, are "ulcerations." We do not call the excoriation which occurs from similar causes in other parts of the body 'ulceration.' We do not call granulations upon mucous membranes 'ulcerations,' whether they secrete mucus or pus, or whether they bleed or not upon mechanical irritation. If we analyse this important passage closely, we shall find that granulations at the os and cervix uteri is the strongest fact testified to in support of the theory of 'ulceration.' Dr. Bennet states, that 'an ulceration occupying the cervix uteri *may present all the various modifications which suppurating surfaces offer in any other part of the body*, from the minute granulations of a slight abrasion, to the livid granulations of an unhealthy sore.' But, immediately afterwards, he negatives this by adding, '*An abraded or excoriated condition* of the mucous membrane is generally the *form* under which ulceration presents itself in the cavity of the cervix, granulations of any size being very seldom met with in this region.' Thus, it is evident, that even in the absence of granulations, Dr. Bennet calls 'an abraded or excoriated condition' a 'form' of 'ulceration.' From his own descriptions, it is evident that Dr. Bennet classes abrasions, excoriations, and granulations together, as forms of ulceration,—a proceeding which, it appears to me, is utterly opposed to all sound pathology. In this way we may explain the great frequency, with which ulceration of the os and cervix uteri is declared to be met with.

"If we consider excoriation or abrasion as genuine ulceration, probably no woman ever passes through life without suffering from this form of disease. In the virgin uterus, the circulation is frequently modified by the recurrence of menstruation, ovarian irritation, mental emotion, the varying conditions of the bladder and rectum; and in constitutional ailments, the vaginal and uterine secretions, in common with the other secretions of the body, are fre-

quently depraved. Excoriation and abrasion of the mucous membranes are easily accounted for under such circumstances. Menstruation alone, in the turgidity of the uterus and ovaria, before the catamenial flow is established; in the exudation of blood from the surface of the uterus; and in the perforation of the peritonæal membrane for the elimination of the ovule from the ovary, trenches very nearly upon pathology. The slightest divergence from the ordinary function merges into disease.

"In married women, and in those who have borne children, other prejudicial causes, in addition to these, are in operation; such are the mechanical irritation of coitus, the risk of lacerations of the os uteri during the passage of the child in parturition, and the state of the uterine orifice which obtains after labour, and the return of the organ to quiescence. After labour, the orifice of the uterus does not contract smoothly, so as to leave the os uteri regular and even, but it becomes puckered and contracted unevenly. In irritable conditions of the mucous membrane of the uterus and vagina, or in a morbid state of the utero-vaginal secretions, these folds or corrugations are very liable to be chapped or excoriated, and I believe this is often mistaken for ulceration. All these, and other causes which I might enumerate, explain the frequency with which the os uteri deviates, in colour, form, and secretion, from the strictly healthy standard. In fact, we may compare the upper part of the vagina to the fauces, which is seldom found perfectly healthy in any subject who may be examined. Some of the indurations and enlargements of the os and cervix uteri appear to resemble enlarged tonsils, and, like them, to increase in size without any amount of active inflammation.

"The granulations which are sometimes found surrounding the os uteri—which may secrete mucus or pus abundantly, and which may bleed on being roughly handled—are, I have no doubt, the result of inflammation; but they resemble *the granular state of the conjunctiva*, rather than the granulations of a true ulcer, the granular os uteri offering no edges or signs of solution of continuity, by which we might satisfactorily declare it to be an ulcer. The *granular os uteri* would be a more correct designation, in such cases, than 'ulceration' of the os uteri. Some of the so-called ulcerations appear to be nothing more than patches of thickened epithelium, or portions of the os and cervix, from which the epithelium has been melted away by acrid or irritating secretions. We can imitate this condition of the parts by the slight application of the nitrate of silver—sufficient to affect the epithelial covering, but not sufficient to injure the mucous membrane beneath.

"It appears to me, that we can neither receive the existence of excoriation or abrasion, of granulation or fungous growths, of the secretion of pus or muco-purulent matter, as affording undeniable evidence of the existence of 'ulceration' of the os and cervix uteri. We must try ulceration in this part of the body, by the same tests which we apply to ulcers in other parts of the economy. We must look for a solution of continuity, with a secreting surface, separated from the healthy structures, having defined edges, everted or inverted,—for an ulcer, in fact, in the common pathological meaning of the term. We find ulcers having these characters in the air-passages, mouth, stomach, intestines, bladder, and other mucous surfaces. There is no mistaking the characters of an intestinal ulcer after dysentery, and there ought to be no mistake about an ulcer of the uterus. Indeed, in the corroding ulcer of the uterus, we unfortunately see that this organ is but too capable of taking on all the qualities of ulceration, in a degree only equalled by its extraordinary vitality, the organ being scooped out, or eaten away, in a comparatively short space of time. Cases are also met with, in which the os uteri has been destroyed by the sloughing ulceration, and loss of structure, sometimes following the application of the more powerful caustic agents. We are, however, called upon, by the unlimited believers in uterine ulceration, to admit that ulcerative disease may exist for years, in its common form, without any perforation, excoriation, serious loss of substance, or altered con-

figuration. Whether we test the so-called ulceration of the uterus by ulceration occurring in other mucous surfaces, or in the uterus itself under undoubtedly ulcerative disease, the distinctive characteristics are wanting in the great majority of cases; and they certainly are not found, unless I am most egregiously mistaken, in the enormous proportion of 222 cases of ulceration to 300 cases of promiscuous uterine disease.

"In all that I have said, I do not wish it to be supposed that I question the frequency of irritation, chronic inflammation, and subacute inflammation, in connexion with leucorrhœa; recent writers would, however, treat leucorrhœa merely and solely as a symptom, not as an independent disorder. But I am well assured that it is often the disease itself, or at least all of it that we can appreciate; and that the irritable or inflammatory condition is excited secondarily, and mainly, by the morbid leucorrhœal secretion. Some change in the innervation or nutrition of the organ occurs; or it sympathizes with a malady in some remote organ, and the secretions are consequently depraved. These depraved secretions irritate the surfaces with which they come in contact, and produce the visible signs of irritation or inflammatory action. We see these discharges sometimes inflame and excoriate even the external integument, but we should never dream of saying that the inflamed condition of the skin was the essential part of the disorder. The same observation applies to the uterus. Thus it is not pathological, nor useful, always to consider leucorrhœa as a mere symptom; and the old plan of astringent injections, though sometimes mischievous, cannot quite be dispensed with; for in some, even profuse leucorrhœas, an astringent injection, by arresting the utero-vaginal discharges, does more than any other plan to soothe inflammatory conditions, or rather, to suspend their causes.

"Notwithstanding the use of the speculum,—notwithstanding the use of lamps and glasses,—there is often considerable difficulty in ascertaining the precise condition of the cavity of the uterine cervix, engorged as it is, and deep in colour from irritation, or other disease, and from the interruption to the circulation in the uterine organs, which is almost necessarily dependent on the introduction and expansion of the speculum within the vagina. But in the dead subject no such difficulties exist; and it might certainly be expected, since leucorrhœa is a malady so very common, that uterine ulceration would be frequently revealed by post-mortem examinations. The only place in which, so far as I am aware, post-mortem examinations have been conducted in considerable numbers, with special reference to the determination of the frequency or infrequency of ulceration of the os and cervix uteri, is at St. George's Hospital. For several years past, the condition of the uterus has been examined with great minuteness and accuracy in the dead subject at this hospital.

"Mr. Pollock, one of the lecturers on Anatomy at St. George's Hospital, informs me, that for more than three years during which he was Curator to the hospital museum, he examined the uterus, internally and externally, in all the female subjects in the dead-house. During this time, upwards of 100 women died in the hospital annually. In each case, the uterus was laid open, and carefully inspected. Mr. Pollock only detected actual and unmistakeable ulceration *in four cases*. Of these, three were scrofulous subjects, and scrofulous ulceration existed in other parts of the body; and in one of them, the ulceration involved the vagina extensively, as well as the os uteri.

"Mr. Gray, who succeeded Mr. Pollock as Curator, informs me that, during his curatorship, he examined the bodies of 180 women, who had died of all diseases in St. George's Hospital, with a distinct view to ascertain the proportion of cases in which ulceration of the uterus existed. These examinations were also conducted with great care and minuteness. Out of the 180 subjects, distinct ulceration of the os and cervix was found in only *three* instances. Slight abrasions, discolorations, and granulations were frequently

observed ; and this accords with the observations of Mr. Pollock. One or two other curators to St. George's Hospital, besides Mr. Pollock and Mr. Gray, have arrived at the same results. It is only by pathological investigations of this kind that we can arrive at infallible results.

"But, it may be asked, why bestow so much pains on proving that abrasion, excoriation, and ulceration are not *ulceration?* Why dispute as to terms? Simply because a name rules treatment, and because the name of 'ulceration' being first given, an heroical treatment, not without danger, is frequently resorted to where milder local applications or constitutional treatment would be equally efficacious. After Mr. Abernethy wrote his celebrated work on the *Constitutional Treatment of Local Disease*, his idea was pushed to its extreme, and local remedies were often most improperly neglected. Now, in all that relates to the uterine organs, the doctrines of Mr. Abernethy are in danger of being entirely refuted, and we are in some risk of utterly neglecting constitutional treatment, and of being entirely absorbed by local applications. This we cannot do, without impeding the improvement of the treatment of this class of affections. When a patient is told she has an ulceration of the womb, she often thinks of an ulcer of the leg, or the cheek, etc., and is proportionably frightened, because of the importance of the organ which is the seat of the presumed disease. There is nothing women will not submit to, to be freed from such a dire malady. At the present time a veritable uterine panic affects the upper and middle classes of society, and every woman with the slightest ache, or discharge, is not satisfied until the peccant organ has been ocularly inspected. I do not believe that this state of things, or its inevitable results, will conduce to the dignity and respectability of our profession. I do not hesitate to affirm, so far as I have eyes to observe and a judgment to weigh facts, that much exaggeration prevails respecting the frequency of this same ulceration of the os and cervix uteri—an exaggeration which should be calmed, so that the legitimate methods of examination may lead, not to a suspicion of our profession, but to a real improvement in the diagnosis and treatment of uterine disease, as it actually exists. We cannot safely repudiate either the local or the constitutional treatment of uterine disease. I have seen cases, in which the local ailment has been as far as possible cured ; nevertheless, the constitutional symptoms remained unrelieved. I have seen others, in which judicious constitutional treatment has cured the local malady without any topical treatment whatever. But in the combat against disease, we require both constitutional and local weapons ; and any views which will disparage either the one or the other, must cripple the resources of our art."

Mr. Hird said, that specular examinations, in women of all ages, were carried, at the present day, to an unnecessary, indeed to a most unwarrantable extent. He could not believe in the common existence of ulcers in the os and cervix,—genuine ulcers with loss of substance, and inverted or everted edges. Caustic was too indiscriminately used. In two cases to which he had been called, the application of nitrate of silver had produced the most serious mischief.

Dr. Tilt did not believe that any one, familiar with uterine disease, would use escharotics in such a manner as to produce the evils described by Mr. Hird.

Dr. James Reid believed that many of the cases now treated so heroically, would do well by the use of astringents. He had seen great benefit result from the application of a strong solution of the diacetate of lead to the os and cervix uteri.

Dr. King related several cases, in which the use of the speculum was of great service. He objected very strongly to its use in the virgin.

Mr. Chippendale said, that from large experience, he could aver, that cases of leucorrhœa generally did well under the use of common injections.

Dr. Murphy, in the absence of Dr. Henry Bennet, would state, that

although the affections of the uterus commonly met with, were granulations and abrasions (such as those which Dr. Smith believed were mistaken for ulceration), yet they required the application of caustic remedies, and would get well under no other treatment. He thought that all the censure which had been lavished on the speculum, applied to its use, and not to its abuse. Its proper use never involved any indecent exposure. Much stress had been laid on the *post-mortem* appearances, and the absence of the signs of ulceration after death. He could readily conceive, that the raised appearances seen in leucorrhœa, and the congested and indurated surface, might quite disappear in the dead subject. At the same time, he must admit, that if a positive ulcer, with loss of substance and distinct edges were required, he was certain that such an ulcer was not a common affection of the uterus.

Dr. Tyler Smith having made a few remarks, the Society adjourned.

Saturday, April 13, 1850.

Edward Wm. Murphy, M.D., President, in the Chair.

Perforating Ulcer of the Stomach: Disease of Arteries, Kidneys, etc. Case Related by Dr. Taylor. John Dynes, aged fifty-three, was admitted as a patient of the St. Pancras Royal General Dispensary, April 2nd, complaining of cough, dyspnœa, and dropsical swelling of the legs. He informed Dr. T. that seven years ago he had an attack of rheumatic gout in the right knee, which confined him to bed for three weeks. For the last two years and a half he has suffered from gradually increasing cough, dyspnœa, and occasional palpitation, much increased by exertion; and within the last twelve months he has been unusually drowsy, frequently falling asleep during the day. Six weeks ago, after exposure to wet, he became much worse: the dyspnœa increased to such an extent as to prevent him from lying down night or day; the cough was constant, and accompanied with copious frothy expectoration; and the legs and thighs began to swell; the chest was dull on percussion, from the level of the third rib, on the left side, as far as the stomach; the dulness extended two inches to the right of the sternum, and completely round the lower part of the chest, for two or three inches above the attachments of the diaphragm; the natural sounds of the heart were replaced by a very loud and harsh double murmur, extensively audible over the front of the chest: the first murmur was propagated upwards, and was very loud in the neck; the second was most intense at the base and apex of the heart. While examining the chest, I found that he had slight tenderness of the epigastrium; and upon questioning him further, he told me that for the last few weeks he had had occasional pain in this region, darting through to the left scapula. Early on the morning of the 7th, he was seized with vomiting of blood. In the course of a few hours, he had vomited sufficient to fill a large wash-hand basin, and he died in about eight hours after the commencement of the hæmorrhage.

April 9th. Autopsy. The cavity of the pleura on each side contained about six ounces of clear serum, and the lungs were emphysematous. The heart was considerably enlarged, pale and flabby; it was covered with numerous white spots and streaks, especially in the track of the coronary vessels. The walls of both ventricles were much thickened; the columnæ carneæ were hypertrophied, and the cordæ tendineæ were thick and rigid. The septum, towards the base of the heart, was an inch and a half in thickness. There were some thickening and deposit on the margins of the mitral valves. The right auricle and auriculo-ventricular orifice were much dilated. Two of the aortic valves were consolidated into one large, irregular, bony mass, so as nearly to block up the aortic opening; the third, which was also the seat of a large bony deposit, was partly separated from its attachment to the aorta, leaving an aperture through which the circulation had been in part carried on, as was shown by a clot of blood which it entangled. The stomach was distended with coagulated blood. Two inches and a half from the pylorus,

on the lesser curvature, there was a large, excavated, circular ulcer, an inch in diameter, with smooth and regular edges. This had completely destroyed the mucous and muscular coats of the stomach, and penetrated the coronary vein, thus giving rise to the hæmorrhage which was the immediate cause of death. The liver was small, and presented some fatty deposit in its structure. Both kidneys were in an advanced stage of Bright's disease. On closely questioning the friends of the deceased, Dr. Taylor learned, that for the last year and a half he had occasionally complained of uneasy sensations in the stomach; these, however, were so slight as not to attract much attention, and do not appear to have amounted to pain till within five weeks of his death. Even then, had the epigastric tenderness not been discovered, he would not have considered it as worth mentioning. Till within two days of his death, his appetite was good, and he never suffered from vomiting or increase of pain after eating. Previous to the attack of rheumatism, he had been in the habit of drinking beer rather freely, but very seldom to intoxication. For the last four or five years, he had been very abstemious.

Health of London during the Six Months ending 30th March 1850. By John Webster, M.D., F.R.S. This paper appears entire, as an original article, at p. 540 of this number.

Saturday, April 20, 1850.

Edward Wm. Murphy, M.D. President, in the Chair.

Valvular Malformation of the Heart in a man who died of Confluent Small-Pox on the fourth day of the Eruption:—and about ten weeks after receiving a Blow. By Mr. J. F. Marson. Edward Walker, æt. 41, was admitted at the Small-Pox Hospital, on the 9th of April, 1850, with confluent small-pox, on the second day of eruption. Ten weeks ago, he was struck over the pit of the stomach, by the pole of a van, and two hours afterwards he began to have palpitation of the heart, which continued more or less ever after. During the first fortnight, he went on with his work, under medical care, and subsequently became a patient at St. George's Hospital. His health having improved there, he returned to work for nearly a fortnight, when he was attacked by small-pox. On admission at the Small-Pox Hospital, he was unable to lie down in bed, from the great disturbance of the heart; his pulse at the wrist was extremely irregular, no three consecutive beats being alike, and 120 in a minute. On examining the heart with the stethoscope, it was found pulsating with great violence, and very irregularly, and might be heard over a considerable part of the chest. He died on the fourth day of the eruption of small-pox. The patient attributed the disease of his heart entirely to the blow he received; he had never had rheumatism.

Autopsy. The heart was greatly enlarged, and weighed twenty-one ounces, when separated from the pericardium; the lungs were very much gorged with blood, but otherwise healthy; the liver was not enlarged; the aorta was healthy. From a table given of the average weight of hearts, in the last edition of Quain's Anatomy, (vol. ii p. 1124) from an extensive examination of *healthy* hearts, made by Drs. Clendinning and Reid, it appeared that the weight, as given by them, was nine and a half ounces, by the former writer, ten and a half ounces by the latter, of men at forty years of age; so that this heart was double the weight of a healthy heart. The man was six feet four inches in height, well-proportioned, and not stout. There was cartilaginous deposit at the base of the mitral valve. Instead of three, there were only two valves situated at the commencement of the aorta; this seemed to have been an original malformation. The edges of the aortic valves were thickened, having some cartilaginous deposit in them, especially where they met at one end. The valves on the right side of the heart were healthy. [The heart was exhibited.]

Dr. Lankester said that the tables of the weight of the heart, referred to by the author, did not mention *the height of the individuals;* and judging from the researches of Mr. Hutchinson into the relation of the lungs to the stature of the person, it might be concluded that the heart of a man of six feet four inches ought to weigh 21 ounces.

Observations on some Remarkable Cases of Hysteria. By Dr. F. R. Manson.

Saturday, April 27, 1850.

Edward Wm. Murphy, M.D., President, in the Chair.

Case of Hysteria (Insanity ?) in the Male, in which both testicles were removed successfully. By Dr. Chowne. [These unjustifiable operations were not performed by Dr. Chowne.]

Phosphate of Ammonia in the Treatment of Gout and Rheumatism. By Dr. Edwards.

Saturday, May 4, 1850.

Edward Wm. Murphy, M.D., President, in the Chair.

Disease of the Arteries of the Brain ; Great Venous Congestion of the Thoracic and Abdominal Viscera, in a Gentleman who died with Symptoms of Apoplexy. By Dr. Cormack. Dr. Cormack remarked that cases, such as that which he was going to describe, were not of unfrequent occurrence in practice ; but yet they were sufficiently interesting to justify a short description, in connection with the recent preparations which he exhibited. Scarpa, Cortesius, Morgagni, Abercrombie, Cruveilhier, Dr. Bright, and, more recently, Mr. Paget and others, have illustrated the connexion which exists between disease of the cerebral arteries and apoplexy ; and in the *Edinburgh Monthly Journal* for June 1842, Dr. Cormack described a case of disease of the arteries of the brain, which he had seen with Dr. John Campbell and the late Dr. Abercrombie of Edinburgh. In that, as in too many similar cases, the *post-mortem* observations were confined to the head.

Case. D. G., a person in good health and comfortable circumstances, was, two years and a half ago, when in his seventy-eighth year, attacked with hemiplegia ; since which time he had no power in the right arm, and very little in the right leg. The power of speech, which was at first much affected, was soon perfectly restored. His mind and memory became much impaired ; but, if trifling ailments be left out of consideration, it may be said, that he went on for two years and three months pretty comfortably,—eating heartily, and sleeping soundly. About the beginning of March, he was observed to be in an unsatisfactory state, though he made no complaint of illness. He was generally drowsy : the paralytic side seemed to have lost the strength which it had regained ; he had frequently, for days at a time, incontinence of urine ; he often lost consciousness for several minutes at a time ; and occasionally, but especially on waking from sleep, he talked deliriously, but was generally, by conversation, restored to mental tranquillity. Dr. Cormack was first consulted on the 24th of April, principally on account of his imperfect respiration, extreme drowsiness, and incoherent conversation. The symptoms had suddenly become very urgent. Dr. Cormack found him sitting on an easy chair, with a feeble pulse, somewhat contracted pupils, and a vacant bewildered expression of countenance. It was difficult to engage his attention ; but, as the reward of some trouble, pertinent answers were obtained to a few questions. His voice was feeble, and his chest expanded very imperfectly at each inspiration. He frequently put his hand to his head as if in pain ; but uniformly stated, when asked, that he had no pain there or elsewhere. His condition at this time is best described by the word *torpor*. The treatment consisted of aperients by the mouth and rectum, a mustard bath to the legs, and a blister to the chest. Next morning, he was decidedly more

alive, and complained, without being asked, of griping pains in the bowels, as well as of some headache ; he also said that the blister, which had risen well, caused great discomfort to him. During that day, he took a small quantity of beef-tea ; and to relieve the chest from the accumulation of mucus, one or two doses of an expectorant mixture were given. On the following day, the torpor returned ; but the urine continued to flow in natural quantity, till it suddenly became entirely suppressed, and, during the last twenty-four hours of his existence, there was not more than a tablespoonful in the urinal. On the 28th, a large blister was applied to the nape of the neck ; but it did him no good. His respiration became slower and slower, and the chest expanded very imperfectly. Soon after the flow of urine ceased, he fell asleep ; and this sleep passed into death about noon on the 29th. For some hours before death, a fetid and unctuous discharge was visible on the skin all over the body. During the first part of his last sleep, the palsied limbs became flaccid ; but, shortly before death, they again became rigid. The hand was firmly clenched. The eyelids, but especially the left, were so firmly shut, as to be difficult to open ; and the jaws were immoveably locked.

Post-mortem Examination, forty-eight hours after Death. There was no appearance of decomposition. A very considerable deposit of fat existed everywhere. *Head.* There was great venous congestion of the encephalon ; the greater part of the hemispheres of the cerebrum were of natural consistence ; but a portion of the base, and the cerebellum, were soft and pulpy. No apoplectic clot, nor any tumour, was found. The choroid plexus had a gritty feel, as if it contained particles of sand. The coats of the cerebral arteries of all sizes were studded with calcareous deposit, which surrounded some parts of the larger vessels in their entire circumference. The vessels in the upper part of the cerebrum appeared least diseased. *Chest.* The *lungs* were chiefly remarkable for their great sanguineous engorgement. The upper lobe of the left lung adhered firmly to the costal pleura anteriorly ; and in its superior part, there was a calcareous deposit as large as a shilling. The right lung was adherent posteriorly to the walls of the chest, but was free anteriorly. The *heart* was large, of somewhat paler appearance than usual, and loaded with adipose tissue. Upon making a careful microscopic examination of the tissue of this organ, it was evident that there was no fatty degeneration. The valves were all competent, even though in the aortic valves there was some calcareous deposit. The heart weighed fifteen and a half ounces. *Abdomen.* The liver was dense, but not cirrhosed. The gall-bladder was much thickened, and contained no bile. The spleen was hard, and rough ; and in one place, it was much puckered ; where there was also a dense mass of contractile tissue of almost cartilaginous consistence. The mesenteric veins, and the whole vascular net-work of the intestines, were turgid with blood. *Kidneys.* The congestion described in other organs was still more striking in the kidneys. The tubular portion of the left, when bisected, presented a black and almost glistening appearance, of which some idea may be formed by comparing it to tar, or printer's ink. The cortical portion was also of deeper colour than natural, and contained several inky spots—extravasated blood. The left kidney contained a cyst of about the size of a large walnut. The right kidney was congested, but in a less degree than the left.

Remarks. Dr. Cormack thought that this was a case, in which death arose from all the functions being gradually arrested by deficient vital energy, consequent upon death of that portion of the brain which was found in a softened state ; that condition of the brain, again, being caused by the atheromatous condition of the arteries. "Pathological anatomy has furnished very striking illustrations of the effect produced by atheromatous deposit in arteries, upon the organs they supply. It has been stated, that in the smaller arteries the atheromatous mass is deposited in such wise, as to occasion more or less coarctation. This is most frequently observed in the arteries of the leg, of the brain (especially in the arteriæ fossæ Sylvii), and of the heart, and

it is accompanied at certain points by ossification of the arterial walls. These circumstances combined serve to diminish, and, if the stoppages happen in several branches at once, entirely to cut off the supply of blood—the natural consequence of which is atrophy, and eventual mortification of the parts implicated. . . . . Many instances of gangrene of the lower extremities, and a certain form of cerebral softening, are probably due to a similar cause."[1]

In the case of D. G., the diminished sensibility, the absence of pain, the sanguineous congestion of the kidneys and other organs, were ascribed by Dr. Cormack to the cerebral softening. The respiration was primarily influenced by the diseased state of the brain; and the deficient aeration of the blood must, in turn, have caused an increase in the severity of the cerebral symptoms. The immediate cause of the cessation of the function of the kidneys was their engorgement. The calcareous deposit in the lungs, the pleural adhesions, and the cyst in the kidney, were evidently not connected with his paralytic seizure, or fatal illness.

On Entropium. By Haynes Walton, Esq. Mr. Walton considered Entropium to be produced by the abnormal action of a portion of the orbicularis palpebrarum muscle, situated on the free edge of the tarsal cartilage, for about two and a half lines. This portion of muscle was thicker than any other part, and its fibres were more compact and redder : it did not appear to have been described by any author. The operation proposed by Mr. Walton, as suitable for those cases commonly met with, consisted in removing this portion of the muscle, with a sufficient quantity of the skin of the lid as would, by the tension arising from its loss, overcome the bending or curving of the tarsal cartilage produced by the unnatural action of the ciliary muscular fibres. He made an incision along the edge of the tarsus, and close to its cuticular margin, from one angle of the lid to the other, and a second nearly parallel to it, about three lines distant, and joining it at the extremities. In both, he carried the point of the knife at once through the skin and muscle down to the cartilage ; he then raised one of the angles of the flap, and dissected off the skin and muscle at the same time, by vertical strokes of the knife, taking care that the cartilage was completely bared. He then brought the edges of the wound together by two or three sutures. Mr. Walton had performed the operation with good results in fifteen instances.

Observations on the Disease usually called Puerperal Fever. By Dr. Lightfoot.

A Youth without a Sternum. Dr. Chowne exhibited and described this interesting person, who has now been seen by vast numbers of the profession.

Saturday, 11th May, 1850.

Edward Wm. Murphy, M.D., President, in the Chair.

Nomination of Office-Bearers. In accordance with the terms of union adopted at a Special Meeting held on the 18th April, the Westminster Society had the right of electing as office-bearers of the amalgamated Societies two Vice-Presidents, ten Members of a Council, and a Secretary ; and the following gentlemen were proposed for these offices, to be balloted for at next meeting. *As Vice-Presidents*, Dr. Garrod, Mr. Clarke, Dr. Lankester, and Mr. J. F. Marson. *As Councillors*, Dr. E. W. Murphy, Mr. H. H. Walton, Dr. F. Sibson, Dr. J. R. Cormack, Dr. F. R. Manson, Dr. Tyler Smith, Mr. W. Harvey, Mr. W. Harding, Mr. R. Greenhalgh, Dr. Samuel W. J. Merriman, Mr. B. Travers, Jun., Dr. T. H. Tanner, Dr. W. R. Rogers, Dr. Henry Bennet, Mr. J. F. Marson, Dr. E. Lankester, Mr. J. Chippendale, and Mr. E. Canton. *As Secretary*, Dr. Routh. [The Medical Society of London have the right of electing from their body the first President of the United Societies, also the Librarian, two Vice-Presidents, the Councillors, and a Secretary.]

[1] Hasse's Pathological Anatomy. Trans. in Sydenham Society, pp. 82-3.

Method of Detecting Chloroform in the Blood. By Dr. John Snow. Dr. Snow placed on the table the apparatus, which he used for detecting the presence of chloroform in the dead body. He said that the process was a modification of that described in the *Journal de Chimie Médicale* for March 1849. The blood or portion of the body to be examined was put into a flask, from which there proceeded a tube, which was made red-hot in part of its course. Another glass tube, attached to the extremity of the latter, was moistened inside with a solution of nitrate of silver, and terminated in a Wolf's bottle, the interior of which was also moistened with the same solution. Heat being applied to the flask by means of the chloride of calcium bath, the vapour given off had to pass through the red-hot tube, and any chloroform which might be present was decomposed, and the chlorine and hydrochloric acid gas being set free, were arrested in the next tube, where they formed a white precipitate of chloride of silver, which became rapidly darkened in colour by the action of light. The nature of the precipitate could be further proved by cutting the tube with a file, and introducing a drop or two of nitric acid into one portion, and of solution of ammonia into the other. He had distinctly detected the presence of chloroform by this process in two kittens, killed by inhaling the vapour, on six successive days after the death of the animals, although no precautions were taken to protect the bodies from the air, and the quantity inhaled by each kitten must have been less than one minim. The parts of the animals examined were the viscera of the chest and abdomen, the brains, and the muscles of the body and extremities. From all these parts, clear evidences of the presence of chloroform were obtained. He had also obtained a precipitate of chloride of silver, by operating on some portions of the muscles taken from the leg of a child amputated under the influence of chloroform at St. George's Hospital. The process, indeed, was one of such delicacy, that he had been able to clearly detect the presence of the hundredth part of a grain of chloroform when dissolved in a thousand grains of water. The only substances which could yield chloride of silver by this method were, Dutch liquid, chloride of ethyle, and some other bodies similar in composition and effects to chloroform, and which, however, were not in common use, or even kept on sale. There were chlorides in the human body, but these could not be decomposed below a red heat, and certainly not till the part became dry; whilst, in the process he employed, the heat to which the part under examination was exposed was only that of boiling water, or a very little more, and it could not become dry in the most protracted examination, as the greater part of the moisture given off became condensed in the tube, which inclined upwards, and flowed back into the flask. The method, therefore, was liable to no fallacy or objection. He had received from Mr. John Parrott some portions of the viscera of a woman, lately found dead, under very mysterious circumstances, in the Wandsworth-road. The parts had been closed up air-tight from the time they were taken from the body. They included a portion of the brain and of the liver; and, though they were kept boiling for two or three hours in their own serosity, not the least trace of chloride of silver was obtained, whilst in the instances where chloroform had caused death, the precipitate began to appear when the heat to which the part was exposed reached to about boiling point. In the muscle taken from the child's leg, the chloroform was only a few minutes longer in being detected, although the quantity present must necessarily have been much less than in a case where death had been caused by it. He therefore concluded, that the death in the Wandsworth-road could not have been occasioned by chloroform.

A Case of Disease of the Spinal Chord, in which the Symptoms supervened upon a Recent Cold; Small-pox had preceded by one year, and Injury to the Spine twelve years. By Mr. J. F. Marson. Joseph Thomas, a black, a native of Nova Scotia, twenty-two years of age, was

attacked in the beginning of March 1845, with symptoms such as are produced by a common cold. He had been employed as a servant in the wards of the Small-pox Hospital for about twelve months, subsequently to being a a patient there with small-pox, which disease he had in a mild form. He was an active, intelligent man, of middle size, and rather slight form. During the first few days of his illness, he was allowed to sit up, and amuse himself without doing any work ;. but his symptoms of disease increasing, he was, with some reluctance, prevailed on to confine himself to bed. His pulse at that time was soft, and from 90 to 100 in the minute. He had thirst, a furred tongue, and copious perspiration. At the end of the week, he complained of stiffness in the neck, and pain on attempting to move his head from side to side ; and he stated that he had had flying pains in his neck and shoulders at night, occasionally, for a month or six weeks past. After being confined to his bed for about a fortnight, he began gradually to lose the use of his arms, and subsequently of his lower extremities. This was followed by retention of urine, and the stools were passed involuntarily. His bladder was emptied night and morning by the catheter, for ten days, after which he passed his water also unconsciously ; and from this time there was a constant dribbling of urine, the bladder remaining in a contracted state. He had complete loss of voluntary motion in all parts, supplied from the nerves below the fourth cervical pair. Sensation, however, did not appear to be in any respect altered, either in increase or diminution. His respiration was easy and free ; his deglutition was good, and he was without pain in any part of the body, except in the neck, and only there on motion ; his appetite was good, and he slept well ; he had no pain on percussion over the spinous processes of the vertebræ, no rigors, and no headache ; his intellect was in no way affected all through his illness, nor was there any indication of his brain being in the least implicated. Amongst the most common and most striking symptoms described by Ollivier and Abercrombie, in their works on Diseases of the Spinal Chord and Membranes, are muscular rigidity, twitching, or convulsions ; yet there were no such signs to guide us in the case now under consideration. No movements could be excited in either the upper or lower extremities, by tickling the soles of the feet or palms of the hands, or other parts of the body, with a feather. It was, however, tolerably evident, from the symptoms detailed above, that there was some mischief going on insidiously in the spine, most likely of an inflammatory nature. From the softness, however, of the patient's pulse, and the profuse perspiration, it was not judged proper to employ general bleeding ; and there was no pain nor tenderness on percussion over the spinous processes, to indicate where local bleeding might be of service. Purgatives and saline medicines were administered, and the patient was kept in bed, and on low diet. Bleeding not seeming to be admissible, he was very early brought under the influence of mercury, so as to make his gums tender, which was continued for more than a fortnight, and a narrow blister was applied from the nape of the neck to the lumbar region. The greatest care was taken to keep his bed as dry as possible, by the use of the urinal, etc. ; but from his constantly lying in the same position, without the power of moving in any way, he soon had a sore formed over the sacrum. Directly that this sore was discovered, he was placed on an India-rubber collar, or crescent ; but a large slough was formed, which appeared to be the proximate cause of death, after an illness of seven weeks. Not the least pain was ever felt in the wound over the sacrum, although sensation was good in all other parts of the body. Owing to the great pain felt in moving the head forward, Mr. Marson predicted, three weeks before the patient's death, that there was pus in front of the cervical portion of the spinal chord, but that, in all likelihood, the chord itself was not materially diseased in this part, because the muscles of the chest and abdomen were used in breathing, which would most likely not have been the case, had the chord been seriously diseased in the upper part of the spine. This opinion was proved to be correct on dissection.

Post-mortem Examination, twenty-four Hours after Death. The spine and its contents were carefully examined in their whole course. There was purulent deposit on the anterior surface of the theca vertebralis, occupying about five-sixths of the whole of the cervical portion of the canal, but the chord itself in this part was not diseased. About six inches of the membranes of the dorsal portion of the chord were congested, and the cellular tissue infiltrated with a gelatinous effusion, opposite to the lower dorsal vertebræ. The entire chord was somewhat softer than natural, and portions of it, of variable extent, were completely disorganized, and reduced to a semi-fluid condition. The fluid found in the vertebral canal, could not be said to be in unusual quantity. The medulla oblongata and pons Varolii appeared to be quite healthy. Some years ago, when a boy, about ten years old, this man received an injury from a horse, by being thrown down and trampled upon, but there was no breach of surface; and, at the time, he appeared only to have been bruised; but now, the two right transverse processes of the seventh and eighth dorsal vertebræ were discovered to have been fractured, opposite to the softened and congested part of the chord and membranes, and in the areolar tissue, surrounding these transverse processes, there was slight but evident purulent infiltration. The processes were loose, and the separated or disunited ends were in a state of ulceration; they did not appear ever to have united after the fracture, but of this it is impossible to speak with certainty. Ample evidence being found at once, on opening the spine, to account for all the symptoms during the fatal illness, other parts of the body were not examined.

Remarks. The patient had been at work, just before his illness appeared, cleaning the balusters of a staircase on a cold windy day, with a window open at the top of the staircase, and another at the bottom. It is likely, however, that the mischief thus done would have passed away as a common cold, but for the predisposition to disease, arising from the injury received from the horse some years previously, probably also influenced somewhat by his late attack of small-pox. Injured parts are disposed to take on morbid action when brought under exciting causes; of this, all must have seen examples. Some might think that bleeding ought to have been employed at the onset of the illness; there were, however, reasons against it, viz.:—a soft pulse, profuse perspiration, and the constitution of the blood. Sir B. Brodie is averse generally to blood-letting after injuries to the spine, and states that patients do not bear bleeding so well after injuries to the spine, as after injuries to the head;[1] but he makes exceptions. There was often great difficulty in detecting the seat of inflammation, the diseased part being surrounded by a strong bony covering, so that pressure upon it frequently would not produce pain. Mr. Copeland[2] has suggested an admirable means of assisting us in our diagnosis of these intricate cases; the part being more susceptible of the stimulus of heat, he has suggested that a sponge should be wrung out of hot water and carried down the spine, which will often give an acute degree of pain while passing over the diseased parts. This test, it need scarcely be remarked, will be of no use where sensation, as well as motion, has been lost.

We should watch such cases with great vigilance, at the commencement, in order to make out as early as possible the exact seat of the inflammation; and in general, in young people, it will be right to take blood, at least topically, if not generally, at the *beginning of the illness*, but not after it has existed some time. It is only in the *early* stage that the disease is much under our control. It should also be borne in mind, that such inflammation is sometimes of a scrofulous character.

Abercrombie,[3] in his admirable work on Disease of the Spinal Chord, says,

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[1] Med. Chir. Trans., vol. xx, p. 162.

[2] Obs. on the Symptoms and Treatment of the Diseased Spine, p. 35. 1815.

[3] Pathological and Practical Researches on Diseases of the Brain and Spinal Chord. Second Edition, p. 415.

"several very remarkable cases have occurred to me, which presented all the characters of extensive Disease of the Spinal Chord, while nothing could be found, either in the brain or the chord, that could in any degree account for the symptoms." After relating these cases, he mentions others, with similar symptoms, which recovered.

There was the possibility of this Disease of the Spinal Chord having been the result of, or in some way owing to, the attack of small-pox. Two other cases had been lately mentioned to Mr. Marson, of Disease of the Spinal Chord, believed to have been caused by small-pox. There was, however, no *post-mortem* examination of either of them.

In the able treatise of Ollivier,[1] three cases are alluded to of disease of the chord, two occurring after petechial, and one after intermittent fever. He, however, did not see any of them. There is a fourth case related in the work of Racchetti,[2] of a girl, ten years old, who died of petechial fever, who had inflammation of the Spinal Chord and membranes, and puriform matter about the cauda equina.

Saturday, May 18, 1850.

Edward Wm. Murphy, M.D., President, in the Chair.

Remarks on the present Treatment of Venereal Diseases in the Hospitals of Paris, as observed during a recent visit to that city. By William Acton, Esq. In preparing a second edition of his work on Venereal Diseases, Mr. Acton had thought it desirable to visit Paris, to observe what progress M. Ricord had made during the last two years in the treatment of those affections. The following is a table of the Syphilitic cases in M. Ricord's wards on the 2d of April, 1850.

Indurated Chancre	33	Gonorrhœa Præputialis	3
Vegetations	2	Scrofulous Affection of the Testis	1
Secondary Symptoms	21	Blennorrhagia	3
Bubo	8	Stricture	3
Vesical Catarrh	4	Chancre of the Anus	3
Phagedenic Chancre	2	Gonorrhœal Rheumatism	1
Epididymitis	7	Albuminuria	1
Urinary Fistula	1	Hæmorrhoids	1
Tertiary Symptoms	8		
Iritis	1	Total	114
Simple (non-indurated) Chancre	11		

Indurated Chancre. A large number of chancres were indurated. This arose from the admission into the Hôpital du Midi of cases of this description, as being the most important. The treatment consisted in the internal use of the proto-ioduret of mercury, continued long after all induration has disappeared. It was often necessary to continue it for three or six months, to prevent the recurrence of constitutional syphilis.

Fumigation. Mr. Acton referred to the re-introduction of cinnabar fumigations into English practice. He explained the proper plan of their application, and the reason of their having fallen into disrepute in the treatment of secondary symptoms, in the more obstinate forms of which they were employed on the Continent with signal success.

Phagedenic Chancre. This included the large class of irritable sloughing, unmanageable sores, described by English writers. M. Ricord treated it with iron, according to the following formula: ℞. Ferri Potassio-Tartratis, ʒi; Aquæ ʒvi. Two teaspoonfuls to be taken three times a day. Mr. Acton had prescribed this remedy for the last two years with the most marked success, in cases in which he had been consulted as to the propriety

[1] Traité de la Moelle Epinière et de ses Maladies. 2me edit. pp. 584, 657.

[2] Della Struttura, delle funzione, e delle Malattie della Medolla Spinale, p. 374. 1816.

of continuing a mercurial course, or of commencing it after all other treatment had failed.

Vesical Catarrh was treated by emptying the bladder, and injecting, every fourth or sixth day, by means of a catheter and glass syringe, a solution of two drachms of nitrate of silver in four ounces of water. The effect, at first, was to produce bloody urine; but the cases rapidly recovered. Mr. Acton had witnessed the result of this treatment.

Strictures. In the more simple cases, M. Ricord employed dilatation by means of conical elastic bougies, with olive-shaped bulbs.[1] In the more severe cases, or if the stricture be undilatable, he used nitrate of silver, or performed incision of the urethra. He objected to the employment of potassa fusa. Mr. Acton also, in common with those who had enjoyed the most extensive opportunities of studying the subject, was opposed to the use of the latter remedy. Sir Charles Bell relates the case of a person, who died of another disease, to whom he had applied the potassa fusa three times. On examining the urethra, he found no marks of erosion, or even partial destruction of the wall. Having armed a bougie, he forced it against his arm, and found the effect very slight; whence he concluded, that the oil used is saponified by the potash, forming a slightly caustic soap, which cannot do much harm or good when small quantities of the alkali are used. This opinion is corroborated by the length of time which some cases take for their cure. If larger portions of the potassa fusa were used, there was great danger of the caustic escaping, and falling on any part of the urethra, so as to produce most untoward consequences. In cauterizing the os uteri, even when aided by the speculum, we were obliged to guard the healthy parts by means of lint dipped in vinegar. That it produced mischievous effects in the urethra, no one could doubt, who had read the accounts given by the writers who witnessed its use at the end of the last century. When these objections to its use had been obviated, Mr. Acton would not hesitate to employ potassa fusa.

Mr. Acton thought, that the practice of incising the stricture through the perinæum might be called for in certain instances. M. Ricord had remarked to him, with reference to the ill-success with which this operation was attended in London, that dangerous consequences often followed whatever plan was employed, and that he was not certain but that retraction of the stricture might return after the perinæum was divided.

Tertiary Symptoms. Iodide of potassium was given in much larger doses in Paris than in London. Mr. Acton had successfully prescribed larger doses of this medicine, in bitter infusions, in several cases, in which small doses had been ineffectually administered.

Mr. Acton, in reply to a question by Mr. B. Travers, junr. said that he gave from eight grains to a scruple of the iodide of potassium three times a day, in a tumbler of the infusion of quassia.

In answer to a question by Mr. Erichsen, Mr. Acton said, that Ricord cut the stricture by pushing, by means of a spring, a cutting edge against it.

Mr. Hancock advocated the use of smaller doses of the iodide than those mentioned by Mr. Acton. He thought that Mr. Acton condemned far too sweepingly the use of caustic in the treatment of stricture. He was anxious to state that, from a more extended trial, he had found it necessary greatly to modify the unfavourable opinion which he formerly held, (and had expressed), regarding this method of cure. In a very severe case, after six applications of caustic, a No. 6 catheter passed. In a case where a common elastic catheter produced violent hæmorrhage, none followed the use of potassa fusa; and after two applications the catheter entered the bladder.

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[1] Specimens of these bougies were exhibited by Mr. Acton.

Dr. Richard Chambers said, that the dose which he commonly prescribed was two or three grains of the iodide of potassium; but in syphilitic cases, or when it was of importance to get a rapid effort, he would decidedly be in favour of larger doses. He thought the medicine ought to be administered largely diluted.

Dr. Willshire said that, unless the salt be largely diluted, it was not absorbed. All practical men, he said, were aware of this fact; and he referred, in particular, to the writings of Dr. Golding Bird.

Mr. Erichsen said that Mr. Acton's paper was satisfactory, inasmuch as it showed that we were not much behind French surgeons. He disapproved of Ricord's plan of cutting through strictures: and he also disapproved of conical gutta percha bougies, as their points were too flexible. He preferred steel or wax bougies. Mr. Erichsen commended Donovan's solution (iodine, mercury, and arsenic) in tertiary syphilis, and preferred the iodide of potassium in mild cutaneous syphilis, and syphilitic affections of the periosteum.

Mr. B. Travers, Jun., thought that if all were true which he had heard in this Society, he ought to go to school again. He considered the iodide of potassium had been immensely overpraised: it was often useless, and not unfrequently produced much mischief. He had seen it, when given in two-grain doses for a long period, accumulate in the system, and induce scurvy of the gums, and disease of the bones. Mr. Travers had seen few cases of stricture, in which cutting or caustic were proper; but he admitted the existence of such cases.

Dr. Cormack said, that his experience of the iodide of potassium was very different from that of Mr. Travers. He had seen it given in a very large number of cases of syphilis, both in Paris and in Edinburgh; he had also used it very extensively in his own practice, and he regarded it as a safer and surer cure for syphilis, in the majority of cases, than mercury, which it might generally, though certainly not always, supplant. He could not allow the statements of Mr. Travers to make any impression upon his mind, till he was satisfied that the medicine administered in the cases referred to, was really the medicine prescribed, and not one of those fraudulent compounds sold in the shops as iodide of potassium. Although Dr. Christison had long ago pointed out the disgraceful manner in which the medicine has been adulterated, the practice is not discontinued; and it ought to be known, that in some of the specimens examined by Dr. Christison, there was not more than 9½ per cent. of the pure salt. Carbonate of potassa is the principal adulteration; which may be suspected when the salt is deliquescent. The pure drug is not deliquescent. Iodate of potassa is another adulteration. In reply to a question asked by a Fellow, Dr. Cormack said that the dose and method of administration which he preferred, was from two to three grains three times daily, in distilled water, or some simple bitter infusion. Larger doses might be safe, but he thought that they were seldom necessary; and he doubted if large quantities could be absorbed.

Mr. Acton made some observations upon the remarks of the different speakers, in the course of which he complained that three points, on which he had laid special stress, had not been discussed;—viz., 1. Fumigation; 2. Iron in phagedæna; and, 3. The Injection of Nitrate of Silver into the bladder.

Termination of the Society. The President was unable to address the Society in a speech of any length, from the lateness of the hour, occasioned by the scrutiny of the ballot; the result of which is as follows:

Election. *Vice-Presidents.* Dr. Garrod and Mr. J. F. Clarke. *Councillors.* Dr. E. W. Murphy, Dr. F. Sibson, Dr. Samuel W. J. Merriman, Dr. Tyler Smith, Dr. Cormack, Mr. Greenhalgh, Mr. B. Travers, jun., Dr. E. Lankester, Mr. E. Canton, and Mr. Harvey.

Hearty and unanimous votes of thanks having been carried, to Dr. Murphy, the retiring President; Dr. Sayer, the retiring Treasurer; and Dr. Merriman, the retiring Secretary, the Westminster Medical Society ceased to exist.

[The above-named gentlemen, along with the following, elected by the other Society, constitute the executive of the MEDICAL SOCIETY OF LONDON, by which name the amalgamated Societies are to be called. *President.* J. Risdon Bennett, M.D. *Vice-Presidents.* W. H. Willshire, M.D., F. Hird, Esq. *Treasurer.* N. Clifton, Esq. *Secretary in Ordinary.* W. Cogswell, M.D. *Secretary for Foreign Correspondence.* T. Davidson, M.D. *Members of Council.* John Bishop, Esq., W. D. Chowne, M.D., W. C. Dendy, Esq., H. Hancock, Esq., E. Headland, Esq., J. Middleton, Esq., G. Pilcher, Esq., W. Smith, M.D., Silas Stedman, Esq., Theophilus Thompson, M.D.

[It will be among the first and most important duties of the office-bearers to prepare a code of laws, and effect the removal of the Library from Bolt Court to the premises in George Street, Hanover Square, which will be opened in October next. It is proposed that the meetings be held in the new rooms every Saturday during the Session, at 8 P.M.]

MISCELLANEOUS INTELLIGENCE.

WESTERN MEDICAL AND SURGICAL SOCIETY. This Society celebrated its fourth anniversary on the 12th April, by a numerously-attended *conversazione*, in the large room in the Cadogan Gardens, Sloane Steeet. SIR B. C. BRODIE, President of the Society, was in the Chair, and delivered an excellent address. He advocated the "maintenance of friendly and generous feelings among those who are engaged in the same useful and honourable pursuit, tending to supersede those feelings of distrust, jealousy, and petty rivalry, which are unworthy of a liberal and scientific profession, but which are too apt to exist in any class of society, the members of which are not brought into personal communication with each other. For this reason, and putting aside all other considerations, he was convinced that a Society, such as that over which he presided, must tend, in no small degree, to the comfort and happiness of the individuals of whom it is composed." Sir B. Brodie referred to the difficulties attendant on the progress of the practitioner of medicine; and shewed that the solicitor, the barrister, the clergyman, and the merchant, had each difficulties and dangers to contend with, often producing as much effect on the minds and progress of the individuals, as those which obstructed the paths of the medical man. In speaking of the influence which should be exerted by the medical profession on the minds of those who devote themselves to it, he made the following remarks:

"Their immediate object is always to do good to others—they are engaged in the pursuit of an important science, which concerns the highest interests of mankind in their present state of existence. The medical practitioner must, for his own sake, always aim at the attainment of truth, and endeavour to observe, to think, and reason correctly. All this is good for his moral and intellectual character; and the result is, that, with all our errors, and all the imperfections which belong to us, there is, perhaps, no class in society, on the whole, more liberal, more free from prejudice, and more disposed to render disinterested service to others, than the great body of the medical profession. Then, there is no other profession, in which the individuals belonging to it have to depend so entirely on their own character and conduct. Whatever advantages we may obtain in life, we earn them for ourselves. We require the good opinion of the public of all classes; but we neither owe, nor can owe, any obligations to the favour of the great.

"The medical practitioner who has laboured to obtain an adequate knowledge of his art, and who honestly and diligently performs his duties, has a right to consider himself one of the most independent members of society.

It seems to me, that this sense of independence is not sufficiently impressed on the minds of a large proportion of our profession. There is no one who thinks it worth his while to place himself under our care, to whom we are not really of more importance than he can be to us. But if we would have others do us justice, we must first do justice to ourselves;—and how is that to be accomplished? It is by shaping our conduct with a view to the general result, and obtaining the good opinion of society at large, of persons of all classes, high or low, rich or poor, without reference to what may be said or done in particular cases, or by different individuals. We cannot fail often to meet with perverseness or caprice, or to find, that when we have done that which it is possible, we have not done that which it is impossible for us to perform. But all this need be no more than a temporary annoyance to the upright and diligent practitioner, who is conscious that he has laboured to obtain an adequate knowledge of his art, and that, on all occasions, he endeavours to do his best. But if we claim, as claim we must, that allowance should be made by others for our own failings and imperfections, much more are we called upon to make allowance for the failings and imperfections of those who labour under the inflictions of bodily disease. We have, to a great extent, the power of relieving pain and preserving life; but our power is limited. On the other hand, there is no limit to the desire of obtaining relief, and the anxiety to live may still linger in those who are at the point of death. Under these circumstances, it seems almost a matter of course that those to whom we can render no further aid, and whose minds are probably weakened by previous illness, should be easily induced to seek for aid elsewhere, and be ready to listen to any promises of cure, however vain and absurd, or even dishonest, those promises may be."

This address was listened to throughout with the deepest attention, and the applause at the close was loud and long-continued.

The following gentlemen were then elected to fill the various offices during the ensuing year:—*President.* Dr. Robert Lee, F.R.S. *Vice-Presidents.* Dr. Aldis, Mr. Barnes, Mr. Gaskell, Mr. Godrich. *Treasurer.* Dr. Woolley. *Council.* Dr. Barclay, Mr. Bullock, Dr. Christian, Mr. Douglas, Mr. Ince, Mr. Martyn, Mr. Muller, Mr. Philips, Dr. Simpson, Dr. Traquair, Mr. Whitmore. *Secretary.* Mr. Seaton. *Auditors.* Mr. Keen, and Mr. Webb.

The formal business being concluded, Dr. Mantell, at the request of Sir Benjamin Brodie, favoured the meeting with an address on the osteology and physiology of the colossal reptiles from the south-east of Eugland, of which there were some unique and most interesting specimens, and in conclusion, briefly considered that most interesting and mysterious physiological problem —the appearance and extinction of species and genera.

Swiss Cretinism.—Dr. Guggenbuehl's Treatment of it on the Abendberg. We extract the following from an Edinburgh newspaper. "About eighteen months ago, we commended to the favourable notice of our readers a brief account of Dr. Guggenbühl's benevolent labours, published here under the title of 'The Abendberg; an Alpine retreat founded by Dr. Guggenbühl for the treatment of infant Cretins. W. P. Kennedy, 1848.' Dr. Guggenbühl is now in Edinburgh, for the purpose of advocating the claims of his institution on the attention of the friends of suffering humanity, as well as with a view to extend his own knowledge of those phases of mental alienation, to the treatment of which he has devoted himself. A meeting of gentlemen interested in Dr. Guggenbühl's object was held on Wednesday, 8th instant, at the Religious Institution Rooms, 6, York Place, the Lord Provost in the chair. Dr. Guggenbühl having stated his views of the nature and curability of Cretinism, and an account of the origin and progress of the hospital on the Abendberg having been read by Dr. Coldstream, resolutions, expressive of confidence in Dr. Guggenbühl's proceedings, and of willingness to aid him in the carrying out of his plans for the amelioration of Cretinism and idiocy, wherever these exist, as well as of the desirableness of

something similar being done for the young affected with idiocy in this country, were moved and supported by Professors Alison, Forbes, and Millar, Sir W. Newbigging, William Brown, Esq., Dr. Spittal, and Robert Paul, Esq. A small Committee was formed to maintain a correspondence with Dr. Guggenbühl; and Mr. Paul, of the Commercial Bank, intimated his willingness to receive and transmit any monies that may be contributed for the support and extension of the Abendberg Retreat.

APPOINTMENTS.

Barnes, Dr. Robert, elected Obstetric Surgeon to the Western General Dispensary, Lisson Grove, in the room of Dr. Henry Bennet, resigned.

Ellis, G. Viner, Esq., appointed Professor of Anatomy in University College, London, in the place of Mr. Quain, resigned.

Lang, Dr. elected Physician to the Exeter Dispensary, in the room of Dr. Tuthill Massy, resigned.

Tunstall, Dr. elected Physician to the Eastern Dispensary, Bath, in the room of Dr. Lindoe, resigned.

OBITUARY.

Brewster, George, M.D., Royal Navy, son of the Rev. G. Brewster, D.D., at Port Royal, Jamaica, on the 5th April.

Buchanan, Dr. J. G., in Edinburgh, on 6th May.

De Blainville, M., at Paris, aged 71, lately. This eminent Naturalist was the successor of Cuvier in the Chair of Natural History of Paris. He was found dead in a railway carriage, while travelling from Paris to England.

Elliott, Dr. Robert, late Surgeon to the Tempo Dispensary, at Kandy, Ceylon, lately.

Gay-Lussac, M., the celebrated chemist and philosopher, in Paris, on 8th May.

Grantham, Mr., Surgeon, 23rd regiment, drowned lately on Lake Erie, through the collision of two Canadian steam-boats.

Healy, Dr. B., in Dublin, on 26th March.

Healy, Dr., of the 1st Punjaub Caaalry, at Kohat, killed by the Afreedees, lately.

Hughes, William, Esq., Surgeon, of 14, Basing Lane, Cheapside, aged 38, at Leicester, on 8th May.

Hull, Thomas, M.D., late of Beverley, Yorkshire, at Lytham, aged 75, on April 27.

Lawson, Stephen, Esq., Surgeon 7th (Queen's Own) Hussars, and formerly of the 87th and 30th Regiments, suddenly, at Cork, on 4th May.

Millar, John, Esq., Staff-Surgeon of the North British District, at Glasgow, on 3rd May.

Mills, G. Ireland, Esq., late Deputy-Coroner for the County of Middlesex, of ramollissement of the brain, aged 47, on 20th May.

Mountford, John, Esq., Surgeon, of Gloucester Street, Queen's Square, suddenly, aged 68, on 13th May.

Poole, Charles, M.D., at London, Canada West, aged 47, on 24th February.

Stafford, W. W., Esq., Surgeon, at Brighton, aged 57, on 10th April.

BOOKS RECEIVED.

Bowman's (John E.) Medical Chemistry. London: 1850. Churchill (Fleetwood), Outlines of Midwifery. Second Edition. Dublin: 1850. Fownes' Manual of Chemistry. Third Edition. By Dr. Bence Jones. London: 1850. Marshall on the Anterior Veins. (From *Philosophical Transactions*.) London: 1830. Orr's Principles of Surgery. Dublin: 1850. Rees (G. A.) on Atelektasis Pulmonum. London: 1850. Reichenbach's Researches on Magnetism, etc. Translated by Professor Gregory. London: 1850.